حمل الآن

مجانا وحصريا

المراجعة رقم (1)

اختبار شهر فبراير





Model (1)

15 Marks

1 Choose the correct answer:

1. All of the following are processes that occur during the water cycle except ....

a) precipitation b) runoff

c) evaporation d) drought

2. The plant loses water from the stomata during .... process.

a) evaporation b) transpiration

c) photosynthesis d) precipitation

3. .... measures the atmospheric pressure.

a) Thermometer b) Barometer

c) Rain gauge d) Anemometer

2 Put (✓) or (✗) in front of each sentence:

1. Temperatures decrease in areas far from the equator. ( )
2. All the sunlight rays that fall on the Earth's surface are inclined. ( )
3. The density of cold water is greater than the density of hot water. ( )

3 Answer the following questions:

1. Mention the factors affect the movement of water in the water cycle.

....

2. Cross out the odd word.

(Humidity - Volcano - Temperature - Atmospheric pressure) ....

Model (2)

15 Marks

1 Write the scientific term:

1. The amount of water vapor present in the air. (..........................)
2. The flowing of water along the Earth's surface into the river and then into the ocean or sea. (..........................)
3. The device that measures the amount of rain in a certain area. (..........................)

2 Complete the following sentences from the two brackets:

1. The force of .... pulls water droplets and sleets towards the ground. (friction - gravity)
2. At night, the sand on the seashore cools .... than the sea water. (faster - slower)
3. Rain and snow fall from clouds during the process of.......................... . (condensation - precipitation)

3 Answer the following questions:

1. Mention the factors that determine the wind direction.

....

....

2. Mention the importance of satellites.

....

Model (3)

15 Marks

1 Complete the following sentences:

1. When the sun rays are .... in an area far away from the equator, they are distributed on a larger area and we feel cold.
2. During evaporation process, water changes into a .... state by .... thermal energy.
3. Clouds are formed due to the .... process, then they fall down in the form of rain and snow.

2 Choose the correct answer:

1. .... is considered the main source of energy in the water cycle.
   a) Water b) Wind c) Sun d) Gravity
2. The sun rays are .... at the equator.
   a) perpendicular b) parallel c) semi-inclined d) very -inclined
3. The .... is used to measure wind speed.
   a) thermometer b) barometer c) anemometer d) rain gauge

3 Answer the following questions:

1. What happens if there is no wind on Earth?

   ....

2. The areas close to the equator are characterized by high temperature. Give reason.

   ....

ALAWWA Gem

Model (4)

15 Marks

1 Put (✓) or (✗) in front of each sentence:

1. The water cycle is affected by three main processes. ( )
2. The sand absorbs heat slower than water during daytime. ( )
3. Inclined sunrays affect a large area, and the temperature increases. ( )

2 Choose from column (B) what suits from column (A):

(A)	(B)
1. Water reservoirs	a. They are used to carry measuring instruments high into the atmosphere to measure weather conditions
2. Cold water molecules	b. They are storage locations of water on Earth
3. Weather balloons	c. have high density

3 Answer the following questions:

1. The amount of energy emitted from the sun affects the transpiration process. Give reason.

....

2. In the opposite figure, the force that is responsible for falling rain is called

....



Model (5)

15 Marks

1 Choose the correct answer:

1. .... currents cause air movement, winds, and changes in weather conditions.

   a) Heat conduction b) Thermal radiation c) Tides d) Convection

2. The sun rays are .... in areas that are very far from the equator.

   a) vertical b) curved c) slanted d) very slanted

3. When ocean water gains energy from sunlight, it.................... .

   a) condenses b) evaporates c) freezes d) melts

2 Write the scientific term:

1. The weight of the air above a certain area. (....................)

2. The process of the movement of water on the surface of the Earth into bodies of water.

   (....................)

3. It is the science of studying and predicting the weather. 

3 Answer the following questions:

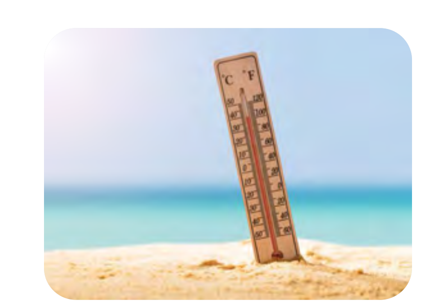
1. We need an oxygen cylinder when climbing mountains. Give reason.

   ....

2. Look at the following figure, then answer.

   a) This device is called ....

   b) It is used to measure ....



Model (1)

15 Marks

1 Choose the correct answer:

1. All of the following are processes that occur during the water cycle except ....

   a) precipitation b) runoff

   c) evaporation d) drought

2. The plant loses water from the stomata during .... process.

   a) evaporation b) transpiration

   c) photosynthesis d) precipitation

3. .... measures the atmospheric pressure.

   a) Thermometer b) Barometer

   c) Rain gauge d) Anemometer

2 Put (✓) or (✗) in front of each sentence:

1. Temperatures decrease in areas far from the equator. (✓)
2. All the sunlight rays that fall on the Earth's surface are inclined. (✗)
3. The density of cold water is greater than the density of hot water. (✓)

3 Answer the following questions:

1. Mention the factors affect the movement of water in the water cycle.

   1- Thermal energy

   2- Gravity force

2. Cross out the odd word.

   (Humidity - Volcano - Temperature - Atmospheric pressure) ....(Volcano)..................................

Model (2)


15 Marks

1 Write the scientific term:

1. The amount of water vapor present in the air. (Humidity)
2. The flowing of water along the Earth's surface into the river and then into the ocean or sea. (Runoff)
3. The device that measures the amount of rain in a certain area. (Rain gauge)

2 Complete the following sentences from the two brackets:

1. The force of .... pulls water droplets and sleets towards the ground. (friction - gravity)
2. At night, the sand on the seashore cools .... than the sea water. (faster - slower)
3. Rain and snow fall from clouds during the process of.................... . (condensation - precipitation)

3 Answer the following questions:

1. Mention the factors that determine the wind direction.

   1- The amount of solar radiation that reach the Earth

   2- Rotation of the Earth

2. Mention the importance of satellites.

   - Carry measuring instruments high into the atmosphere to measure weather conditions.

Model (3)

15 Marks

1 Complete the following sentences:

1. When the sun rays are ....very inclined .... in an area far away from the equator, they are distributed on a larger area and we feel cold.

2. During evaporation process, water changes into a .... gaseous.................. state by ....gaining.................. thermal energy.

3. Clouds are formed due to the ....condensation .... process, then they fall down in the form of rain and snow.

2 Choose the correct answer:

1. .... is considered the main source of energy in the water cycle.

   a) Water b) Wind c) Sun d) Gravity

2. The sun rays are .... at the equator.

   a) perpendicular b) parallel c) semi-inclined d) very -inclined

3. The .... is used to measure wind speed.

   a) thermometer b) barometer c) anemometer d) rain gauge

3 Answer the following questions:

1. What happens if there is no wind on Earth?

   - The regions around the equator become extremely hot and the poles will completely freeze.

2. The areas close to the equator are characterized by high temperature. Give reason.

   - Because the sun rays are concentrated on a small area, giving a high effect of heat.

Model (4)

15 Marks

1 Put (✓) or (✗) in front of each sentence:

1. The water cycle is affected by three main processes. (✓)
2. The sand absorbs heat slower than water during daytime. (✗)
3. Inclined sunrays affect a large area, and the temperature increases. (✗)

2 Choose from column (B) what suits from column (A):

(A)	(B)
1. Water reservoirs	a. They are used to carry measuring instruments high into the atmosphere to measure weather conditions
2. Cold water molecules	b. They are storage locations of water on Earth
3. Weather balloons	c. have high density

1. b   2. c   3. a

3 Answer the following questions:

1. The amount of energy emitted from the sun affects the transpiration process. Give reason.

- As the amount of energy emitted from the sun increases, as the rate of transpiration process increases.

2. In the opposite figure, the force that is responsible for falling rain is called

.... gravity ....



Model (5)

15 Marks

1 Choose the correct answer:

1. .... currents cause air movement, winds, and changes in weather conditions.

   a) Heat conduction b) Thermal radiation c) Tides d) Convection

2. The sun rays are .... in areas that are very far from the equator.

   a) vertical b) curved c) slanted d) very slanted

3. When ocean water gains energy from sunlight, it........................ .

   a) condenses b) evaporates c) freezes d) melts

2 Write the scientific term:

1. The weight of the air above a certain area. (Atmospheric pressure)
2. The process of the movement of water on the surface of the Earth into bodies of water.

   (collection)
3. It is the science of studying and predicting the weather. (Meteorology)

3 Answer the following questions:

1. We need an oxygen cylinder when climbing mountains. Give reason.

   - Because the amount of oxygen gas decreases as we rise up.
2. Look at the following figure, then answer.



   a) This device is called ....(thermometer)........................ .

   b) It is used to measure ....(temperature)........................ .



كيفية طباعة صفحات معينة من ملف معين

مثلا ازاى نطبع الصفحات من صفحة 4 الى صفحة 9



خطوة 1

خطوة 2
اختيار اسم الطابعة بتاعتك

خطوة 3
كتابة الصفحات المراد طباعتها
نكتب رقم 4 ثم نكتب الشرطة دي - ثم نكتب 9

خطوة 4
اختيار نوع الورق

خطوة 5
اختيار A4

خطوة 6

حمل الآن

مجانا وحصريا

المراجعة رقم (2)

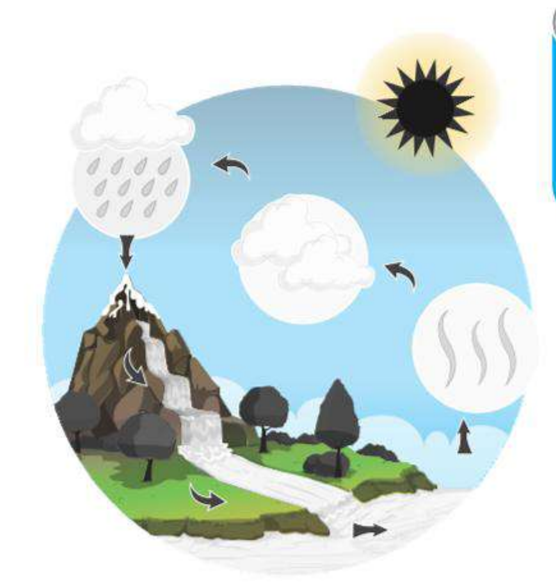
اختبار شهر فبراير



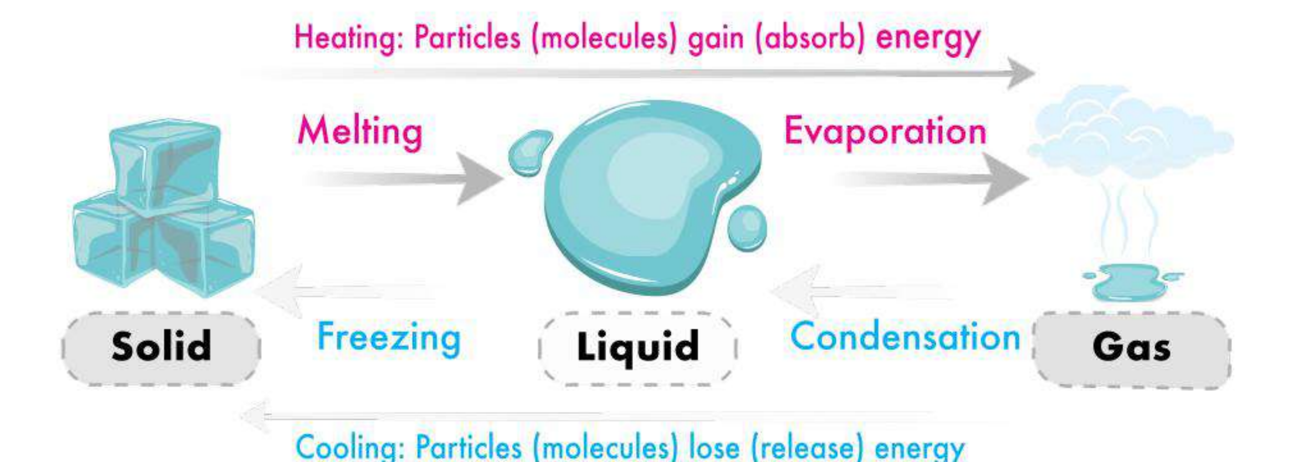


Summary

- Water on Earth exists in three states:
  1. Solid (ice)
  2. Liquid (water)
  3. Gaseous (water vapor)



- Water changes from one state to another when it gains or loses energy.

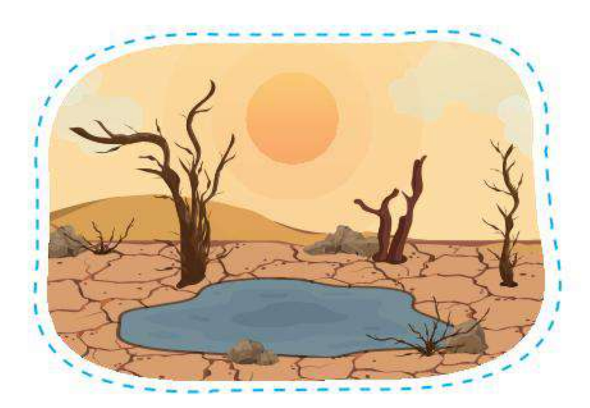


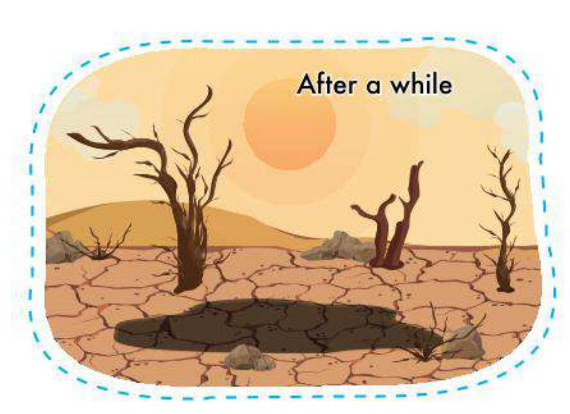
- Melting and evaporation are processes that occur when particles gain (absorb) thermal energy.

- Condensation and freezing are processes that occur when particles lose (release) thermal energy.

Water levels in lakes:

- Water levels in lakes rise (increase) due to the precipitation process.
- Water levels in lakes drop (decrease) due to the evaporation process.

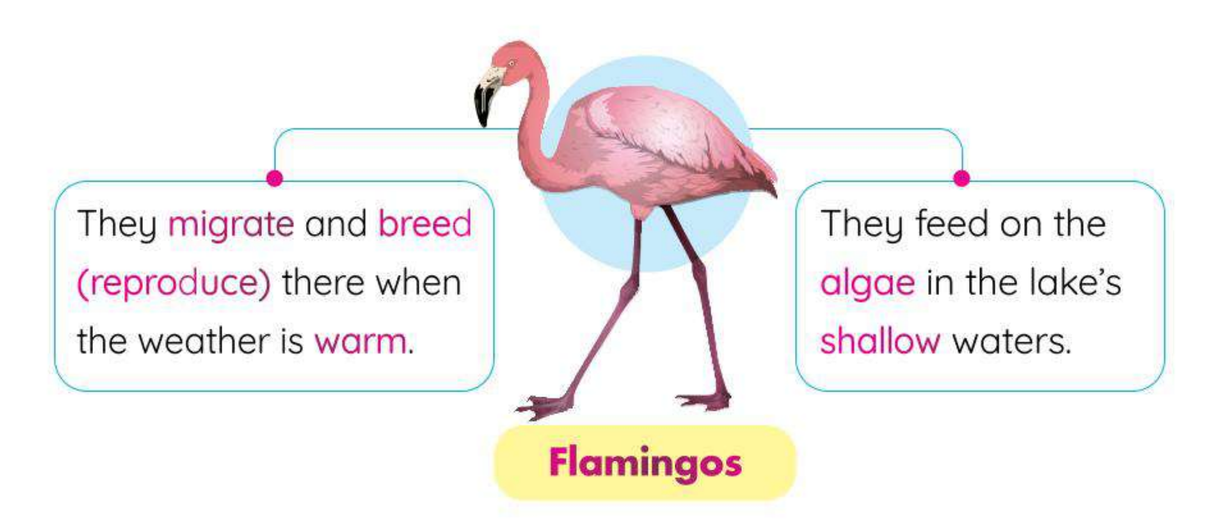




- The water levels in lakes rise and drop due to the energy transfer during the water cycle.
- Scientists try to find ways to conserve ecosystems from climate change.

Example:

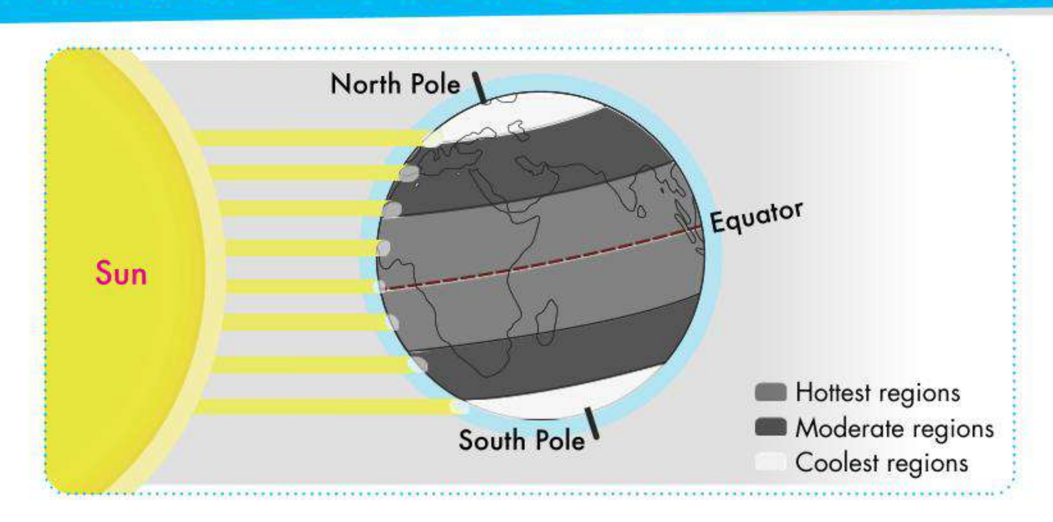
- There was a large salt lake in Turkey that had hosted huge colonies of flamingos.
- Over time, it turned into a puddle, then it dried up completely in the summer.



Solar Energy Distribution

- The amount of solar radiation that reaches any area on the Earth's surface in different areas is unequal.

The following figure shows the distribution of solar energy on the Earth



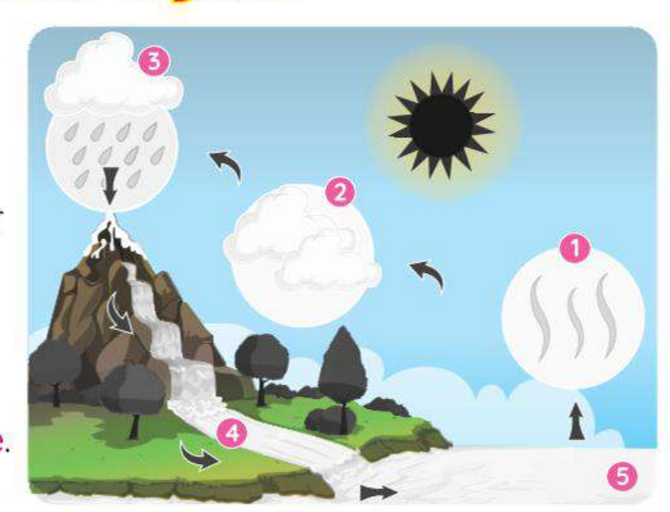
We can divide the Earth into three different climatic zones:

Region	Hottest Regions	Moderate Regions	Coolest Regions
Location	They are close to the equator	They are located between the hottest and coldest regions.	They are regions near the North or South pole of the Earth.
Weather	Hot and wet (humid)	Warm	Very cold
The Rate of Evaporation	Highest	Moderate	Lowest
Sunrays	Perpendicular and focused on small area	Semi-slanted (semi-inclined) and focused on larger area.	Very slanted (very inclined) and focused on much greater area.

Unit 3

Water Cycle

- There is no start point or end point for the water cycle.
- Even in a dry desert, the water cycle takes place.
- The two basic factors that drive the water cycle are the solar energy and gravity force.



First: Important Definitions:

Water Cycle	It is the movement of water among the various reservoirs.
Reservoir	It's the storage location of water on Earth such as: • Oceans • Seas • Rivers • Lakes • Glaciers • Groundwater • Soil • Rocks • Living organism

Water cycle consists of three main processes and two steps:

1 **Evaporation:**	A process in which water changes from a liquid state into a gaseous state.
2 **Condensation:**	A process in which water changes from a gaseous state into a liquid state.
3 **Precipitation:**	A process in which water falls on the Earth's surface in the form of rain, sleet, hail, or snow
4 **Runoff:**	A step in which water flows along the Earth's surface into streams or rivers, then into the sea or the ocean.
5 **Collection:**	A step in which the water of rain is collected in different bodies of water.

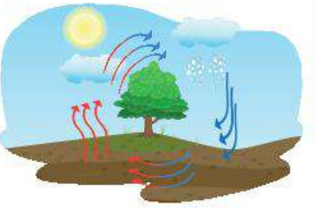
Second: Factors that affect the water cycle:

Sun:

Sun provides the energy needed to:

- melt ice into water.
- evaporate water into water vapor.
- generate wind.



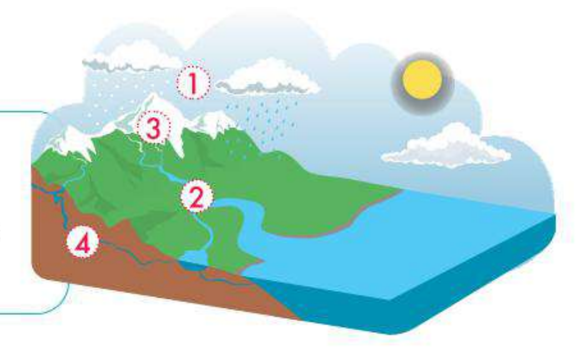


Wind:

- Wind moves water vapor from place to another.
- Wind causes ocean currents that transport water to different locations on Earth.



Gravity:



1. Gravity pulls water droplets and ice crystals in clouds down to fall back to Earth's surface.

2. Gravity pulls liquid water to flow downhill in streams and rivers toward larger water bodies.

3. Gravity pulls glaciers from higher elevation to lower elevation.

4. Gravity also causes liquid water to leakage down into the ground to the groundwater reservoir.

Third: Steps of the water cycle:

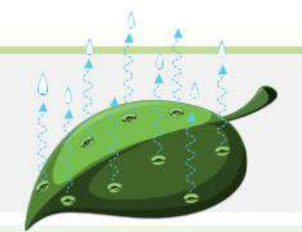


1 Evaporation

- Sun heats liquid water of oceans, seas, lakes, and rivers to change it to water vapor.
- Plants give off water vapor through transpiration.

Transpiration

The process of releasing water vapor into the air through tiny pores on the leaves called stomata.



- Transpiration is a form of evaporation.
- About 10 % of the water vapor in the air comes from transpiration.
- You can observe transpiration when a plant set in the sun with a plastic bag tied around the leaves.
- The rate of transpiration increases by increasing solar radiation.



2 Condensation

- **W**ater vapor in moist air is cooled and condensed forming water droplets.
- **W**ater droplets stick on the particles of dust, pollens and smoke in air.
- Millions of tiny water droplets are collected together forming cloud.

Examples of Condensation:

- Formation of fogs and clouds
- Formation of water droplets on the glass cup contains cold water.



3 Precipitation

- **W**hen water droplets in clouds become too heavy,
  Gravity will pull water droplets down in the form of precipitation.



- When precipitation hits Earth in the form of rain, snow, sleet, or hail, it may flow across the land as runoff.



- Runoff is collected in streams, rivers, lakes, or oceans.
- Eventually, water evaporates and starts the water cycle all over again.

Convection Current

First: Ways of heat transfer:

- Heat transfers through solids by conduction.
- Heat transfers through fluids (liquid and gases) by convection.
- Heat transfers from the sun through the space by radiation.

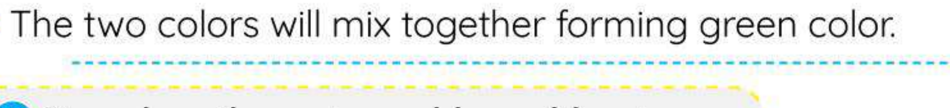
Second: Experiment:

What happens when:

1. You place the blue cold water on yellow hot water.



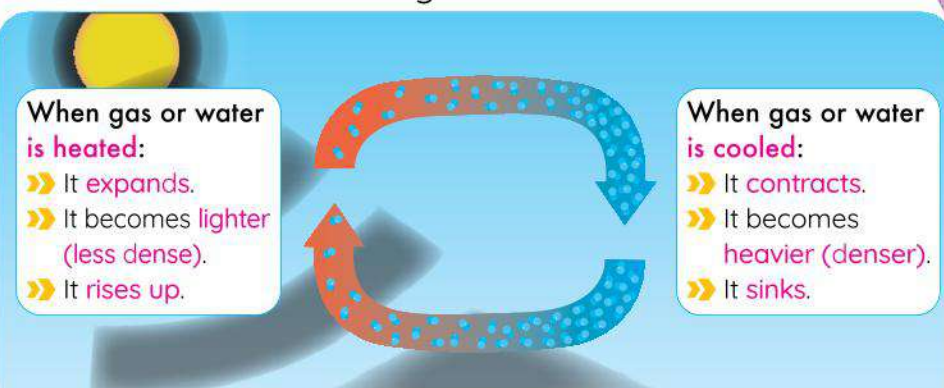
- The two colors will mix together forming green color.



2. You place the water on blue cold water.



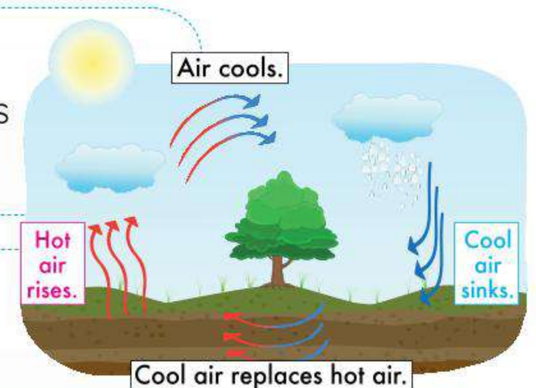
- The two colors will not mix together.



Concept 1

Third: Convection current in nature:

As warm, moist air rises,
Water vapor in the air cools and condenses into water droplets to form clouds.





As warm air is replaced by cold air,
This process causes wind.

The rising warm air loses water in the form of rain.
The descending cold air becomes dry when it reaches Earth's surface.

When the dry air flows on Earth, it forms a group of deserts.

Convection currents happen in

- Atmosphere
- Water
- Earth's mantle

Circulation of convection currents helps to

- determine regional climates
- generate wind
- produce ocean current

- Earth has a global wind system that consists of winds that blow in a constant direction over long periods of time.
- The wind direction is determined by two factors:
  1. The unequal solar radiation at different latitudes.
  2. The rotation of Earth.

General Exercises on Concept 3.1

1 Choose the correct answer:

1. A puddle may dry up due to the .... process.
   a. condensation b. precipitation c. evaporation d. melting

2. All the following processes are involved in the water cycle, except ....
   a. condensation
   b. transpiration
   c. precipitation
   d. photosynthesis

3. .... is a form of evaporation that takes place in the plant's leaves.
   a. Photosynthesis b. Transpiration c. Precipitation d. Respiration

4. .... return(s) water to the air in the form of water vapor.
   a. Transpiration b. Evaporation c. Condensation d. a and b

5. Which of the following is NOT a result of condensation?
   a. Clouds b. Water vapor c. Fog d. a and c

6. The snow falling in a polar region represents the .... process.
   a. condensation b. precipitation c. evaporation d. melting

7. The water in a river traveling down a mountainside into the sea represents ....
   a. transpiration b. precipitation c. runoff d. evaporation

8. .... is the main source of energy that drives the water cycle.
   a. The moon b. Gravity c. The Sun d. Earth

9. When the water in clouds becomes too heavy, it falls on the Earth's surface by a process called ....
   a. condensation b. precipitation c. evaporation d. melting

10. All the following are examples of water reservoirs on the Earth, except ....
    a. atmosphere b. glaciers c. space d. soil

11 The .... process follows the evaporation process in the water cycle.

a. precipitation b. transpiration c. condensation d. melting

12 Groundwater flowing from areas of higher elevations to lower elevations due to the action of ....

a. gravity b. wind c. Sun d. energy

13 Evaporation of the liquid water needs .... to form water vapor .

a. gravity b. wind c. force d. energy

14 All the following are forms of precipitation, except ....

a. snow b. rain c. water vapor d. hail

15 .... and .... processes release energy.

a. Evaporation – condensation b. Freezing – condensation
c. Melting – transpiration d. Transpiration – evaporation

16 .... and .... processes are the reason that water vapor exists in the air.

a. Transpiration - condensation b. Evaporation - precipitation
c. Precipitation - condensation d. Evaporation - transpiration

17 The climate near the equator is ....

a. hot and dry b. hot and wet c. cold and wet d. cold and dry

18 Heat transfers by convection currents in ....

a. space b. metals c. fluids d. solids

19 Heat is transferred from the Sun through space by ....

a. conduction b. convection c. radiation d. b and c

20 **W**hen the air particles gain energy, they become .... dense and ....

a. more - sink b. less - sink c. more - rise d. less - rise

21 **W**hen air is heated by solar radiation, it will move ....

a. upward b. downward c. forward d. backward

22 The .... air forms a group of deserts around the Earth.

a. moist b. humid c. dry d. wet

2 Put (✓) or (✗):

1. The state of water changes when water gains or loses energy. ( )
2. Flamingos prefer to breed when the weather is cold. ( )
3. In the water cycle, the step that follows the precipitation process is collection. ( )
4. The water level in lakes decreases due to the precipitation process. ( )
5. The water level in the lake is not affected by any change in temperature. ( )
6. As we move away from the equator, the climate becomes warmer. ( )
7. The regions near the two poles have moderate temperatures. ( )
8. The amount of solar radiation that reaches the Earth is equal. ( )
9. The water cycle occurs in a dry desert environment. ( )
10. Falling of sleet in an area is an example of precipitation. ( )
11. Transpiration in plants contributes to the water cycle. ( )
12. The human body is considered a water reservoir. ( )
13. Melting and condensation processes only occur by cooling. ( )
14. Clouds are made up of millions of tiny water droplets. ( )
15. When water vapor rises up in the sky, it forms clouds. ( )
16. Water vapor is invisible, so we can't see it in the atmosphere. ( )
17. 10% of the water vapor in the air comes from green plants. ( )
18. When water droplets in clouds become too heavy, they evaporate. ( )
19. Cold air is always replaced by warm air. ( )
20. Cold water is denser than hot water. ( )
21. When the air is heated, it expands and becomes denser. ( )
22. The heat of the Sun transfers through space by convection. ( )

23 Convection current has an important role in the condensation process. ( )

24 Warm air is less dense than cold air. ( )

25 Warm air always replaces cold air. ( )

26 In convection, both warm and cold particles of a fluid move in the same direction. ( )

27 Deserts are formed by the effect of moist air. ( )

28 As you go away from the equator, sunlight is distributed over a smaller area. ( )

29 Wind is produced with the help of solar radiation. ( )

30 When glaciers are heated, they turn from a liquid state into a solid state. ( )

3 Write the scientific term:

1 It is the movement of water among the different reservoirs. (..................)

2 It is a storage location for water on Earth. (..................)

3 The main source of energy that drives the water cycle. (..................)

4 The force that pulls water droplets down o Earth's surface. (..................)

5 The force that moves water vapor in the air from one place to another. (..................)

6 The process of changing water into water vapor by heating. (..................)

7 The process of changing water vapor into water droplets by cooling. (..................)

8 The process by which glaciers change into liquid water. (..................)

9 The process by which water falls on Earth in the form of rain, sleet, snow or hail. (..................)

10 It is the process by which water on the Earth's surface is collected by different water bodies. (..................)

11. It is the step in which water flows along the Earth's surface into the river. (..................)
12. It is a form of evaporation that takes place in plant leaves. (..................)
13. It is the way in which heat transfers within liquids and gases. (..................)
14. It is the way in which the heat of the Sun transfers through space. (..................)
15. Circulation that is caused when air warmed by solar radiation rises and then replaced by cooler air that flows from nearby areas. (..................)
16. Large areas on Earth that are formed due to the effect of dry air. (..................)

4 Complete the following using the words between the brackets:

A (evaporation - transpiration - condensation – liquid -warm – precipitation)

1. About 10% of the water vapor in air comes from .... of plants.
2. When glaciers gain thermal energy, they change into .... state.
3. The large salt lake in Turkey is dried up due to the increase in the rate of ....
4. Clouds are formed due to .... process then rain falls due to .... process.

B (releases - gravity - force - Atmosphere - Clouds - absorbs - soil)

1. .... and .... are considered water reservoirs.
2. Groundwater flows from higher elevations to lower elevations by the action of ....
3. .... contains millions of tiny water droplets.
4. Water turns into ice when it .... energy, and turns into water vapor when it .... energy.
5. The water starts to move or change its way of movement when a .... affects it.

C (solar - convection - global wind system - rain - density)

1. Earth has a .... in which winds blow in a constant directions.
2. The amount of .... energy that reaches the Earth affects the rate of evaporation process in the water cycle.
3. Cold water has more .... than warm water.
4. Heat can transfer through the Earth's atmosphere due to the .... currents.
5. When warm air contains enough water vapor, it loses this water in the form of ....

5 Cross out the odd word:

1. Evaporation – Filtration – Condensation – Precipitation (....................)
2. Evaporation – Transpiration – Condensation – Melting (....................)
3. Smoke – Dust – Pollens – Rocks (....................)
4. Rain – Snow – Water vapor – Hail (....................)
5. Living organisms – Glaciers – Dust – Atmosphere (....................)
6. North Pole – Hottest regions – Coolest regions – South Pole (....................)

6 Choose from column (A) what suits it in column (B):

A

Column (A)	Column (B)
1 Solar radiation	a. is formed due to condensation process.
2 Gravity	b. pulls groundwater from high elevation to low elevation.
3 Wind	c. is an example of reservoir.
4 Cloud	d. is the source of energy that drives the water cycle.
5 Atmosphere	e. moves water vapor from place to another.

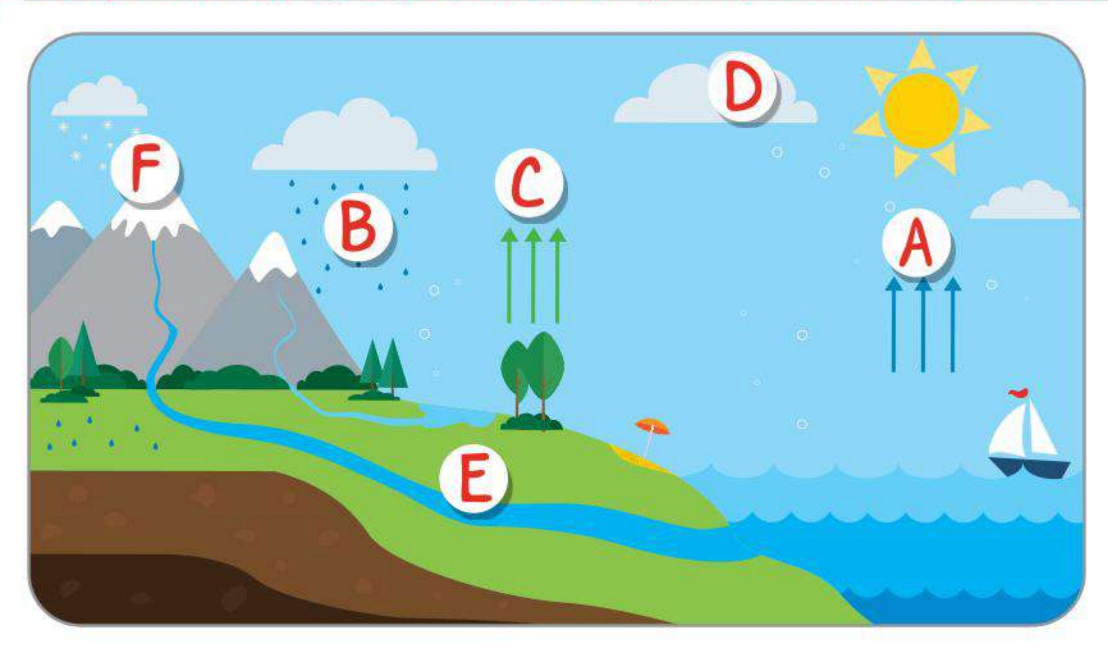
1 .... 2 .... 3 .... 4 .... 5 ....

B

Column (A) Weather is	Column (B) when sunrays fall ....
1 hot and humid	a. very slanted on a much greater area.
2 warm	b. perpendicular on small area.
3 very cold	c. slanted on a greater area.

1 .... 2 .... 3 ....

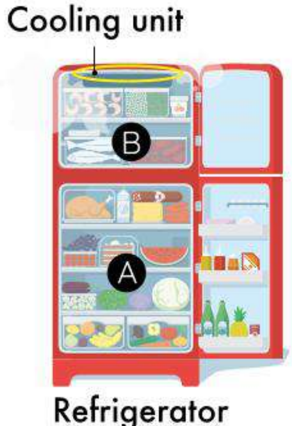
7 Study the following figure, then complete the following sentences:



1. Letter (........) represents the runoff.
2. Letter (........) represents the precipitation process.
3. Letter (........) represents the transpiration process.
4. Letter (........) is the opposite process of condensation.
5. Letter (........) is formed due to condensation.
6. When part (........) gains energy, it changed into liquid water .

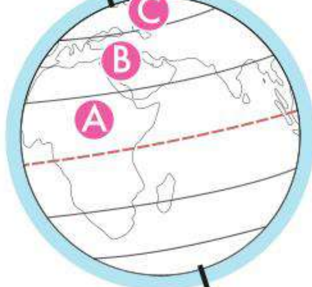
8 Study the following figure, then put (✓) or (✗):

1. The air in area (B) is cooled and descends as it becomes denser. (   )
2. The air in area (A) replaces the air in area (B). (   )
3. Heat transfer inside the refrigerator by radiation. (   )
4. If we put the cooling unit at the bottom of the refrigerator, heat won't transfer (   )



9 Study the following figure, then put (✓) or (✗):

1. Region (A) has the highest rate of evaporation. (   )
2. Region (B) has a warmer climate than region (C). (   )
3. The sunrays fall very slanted on region (A). (   )
4. The sunrays have different impacts on the three regions. (   )



10 What happens if:

1. A moist air when touches a cold glass of water?

....

....

2. The Sun heats the water of ocean?

....

....

3. The water droplets in the clouds become very heavy?

....

....

4 Precipitation hits the Earth's surface?

....

....

5 The dry air flows on the same place for a long time?

....

....

6 There is no wind on Earth?

....

....

11 Give reasons for:

1 The water levels in some lakes may rise.

....

....

2 The water levels in some lakes may drop.

....

....

3 Fog may form over a field in the early morning.

....

....

4 Moving groundwater from high elevation to low elevation.

....

....

5 The Sun is the main source of energy that drives the water cycle.

....

....

6 The rate of evaporation is lowest in regions near the poles.

....

....

Answers Concept 3.1

1

1 c	2 d	3 b	4 d	5 b
6 b	7 c	8 c	9 b	10 c
11 c	12 a	13 d	14 c	15 b
16 d	17 b	18 c	19 c	20 d
21 a	22 c			

2

1 ✓	2 ✗	3 ✗	4 ✗	5 ✗
6 ✗	7 ✗	8 ✗	9 ✓	10 ✓
11 ✓	12 ✓	13 ✗	14 ✓	15 ✓
16 ✓	17 ✓	18 ✗	19 ✗	20 ✓
21 ✗	22 ✗	23 ✓	24 ✓	25 ✗
26 ✗	27 ✗	28 ✗	29 ✓	30 ✗

3

1. Water cycle
2. Reservoir
3. The sun
4. Gravity force
5. Wind
6. Evaporation
7. Condensation
8. Melting
9. Precipitation
10. Collection
11. Runoff
12. Transpiration
13. Convection
14. Radiation
15. Convection currents
16. Deserts

4

(A)
1. transpiration
2. liquid
3. evaporation
4. condensation - precipitation

(B)
1. Atmosphere - soil
2. gravity
3. Clouds
4. releases - absorbs
5. force

(C)
1. global wind system
2. solar
3. density
4. convection
5. rain

5

1. Filtration
2. Condensation
3. Rocks
4. water vapor
5. Dust
6. Hottest regions

6

(A) 1 d 2 b 3 e 4 a 5 c

(B) 1 b 2 c 3 a

7

1 (E) 2 (B) 3 (C) 4 (A)
5 (D) 6 (F)

8

1 ✓ 2 ✗ 3 ✗ 4 ✓

9

1 ✓ 2 ✓ 3 ✗ 4 ✓

10

1. Water droplets will form on the cold glass of water.
2. Water will evaporate and rise in the sky.
3. Gravity will pull water droplets down in the form of precipitation.
4. Water will flow across the land as runoff.
5. A group of deserts will be formed.
6. Some ecosystems will disappear or change completely.

11

1. Due to the precipitation process.
2. Due to the evaporation process.
3. Due to the condensation process.
4. Due to the action of gravity force.
5. Because Sun provides the energy needed to melt ice into water or to evaporate water into water vapor.
6. Because sunrays falls very slanted and focused on much greater area.

Summary

Meteorologists

They are scientists who use different tools to study and forecast the weather.



Meteorology

It is the science of studying and predicting the weather.

Meteorologists predict weather through three stages:

Gathering Data → Analyzing Data → Put It all Together

1 Collecting (Gathering) Data:

- Meteorologists collect as much data as they can about weather. G.R
  To ensure that they have a complete understanding of the weather.
- Meteorologists collect data through wide areas, different altitudes. G.R
  To understand how weather is changing and to predict future weather.

(A) Measurement Tools:

Thermometer	Measures the air temperature.	
Barometer	Measures the air pressure.	
Anemometer	Measures the wind speed.	
Rain Gauge	It can record how much precipitation is falling in an area.	
Weather Radar	It detects precipitation and tracks thunderstorms and hurricanes.	

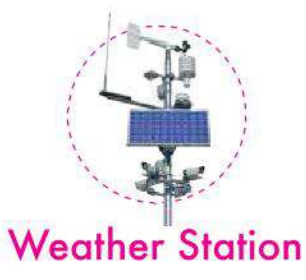
(B) Carrying Measurement tools:


Airplanes


Satellites


Weather Balloons

(C) Transmitting data tools:


Weather Station


Satellite

2 Analyzing Data:

- One of the most useful ways to analyze data is mapping data.
- Mapping data helps meteorologists to:
  1. identify weather patterns and air movement.
  2. communicate information to meteorologists and the public.



3 Putting It all Together:

- Meteorologists apply what they know about how other factors, such as landforms, affect weather.

- Meteorologists use complex computer models to predict how different factors will interact.

- Weather forecasts can be uncertain for the next days or weeks.
- Some unexpected changes in weather patterns may happen.

Atmospheric Pressure

It is the weight of the air column above a location.

Or

It is the force that air exerts on its surroundings.

Humidity

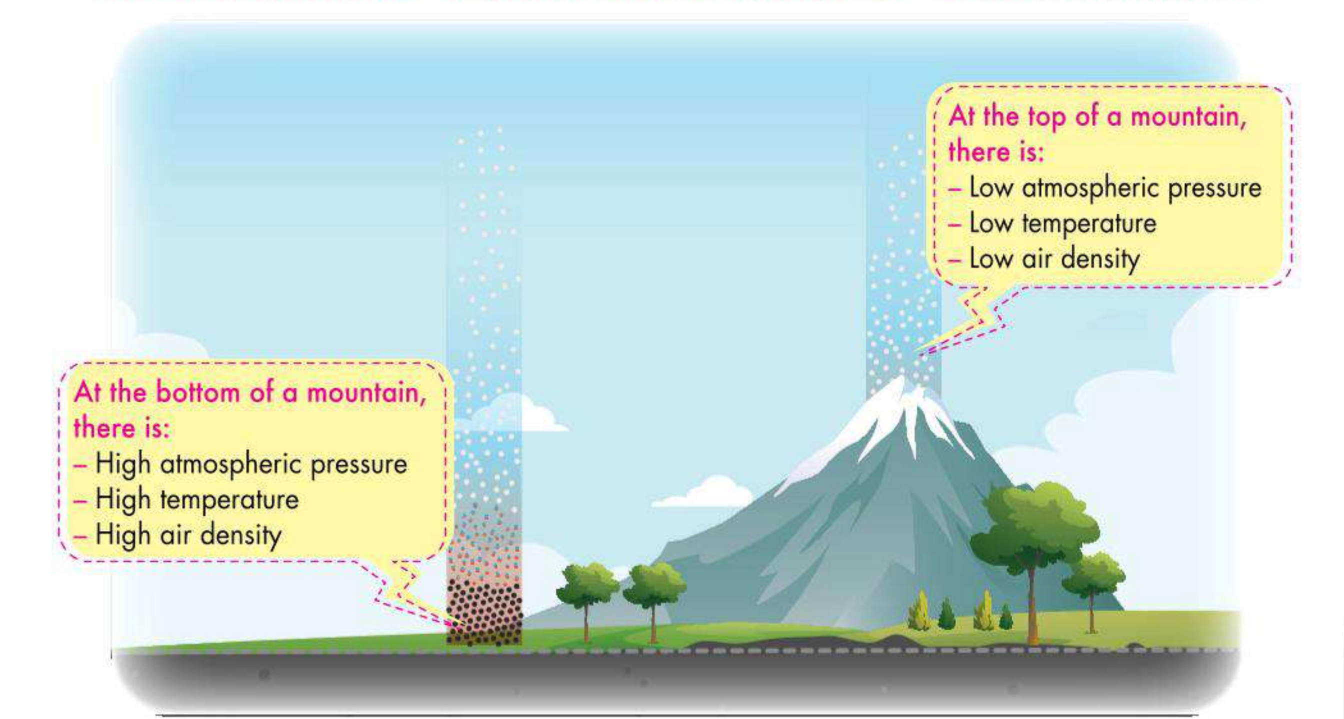
It is the measure of how much water vapor is present in the air.

Changes in the Atmosphere

- The properties of the atmosphere are different at the top and the bottom of a mountain.

As the elevation from the sea level increases, all the following decrease:

1. Temperature
2. Atmospheric pressure
3. Air density



Unit 3

Desert:

Climate:	hot and dry or arid
Rainfall:	• It has the least amount of rain compared to other biomes. • Deserts receive about 250 millimeters of rain per year.



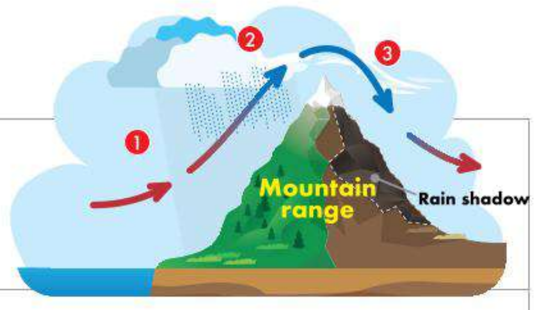
» Farming is difficult in the desert biome.
Because more water evaporates than water that falls by precipitation.

» Farmers use innovative ways to make the soil fertile and fruitful, such as:



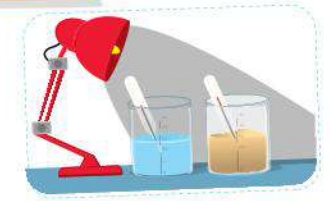
Water	Soil	Crops	Energy
They irrigate crops by reusing water.	They improve soil quality.	They grow crops that are able to withstand the heat and low-fertility soil.	They use solar energy or wind turbines to power the farm.

Rain shadow:



Definition:	An area on the dry side of a mountain range where rainfall is reduced.
How does it form?	It is formed when mountains block the humid air.
Steps of formation:	1 When humid air faces a mountain range, it rises. 2 The humid air cools, so water vapor condenses, then precipitates. 3 The air becomes dry and descends on the other side to form an area called a rain shadow.

Experiment 1: The Unequal Heating of Earth



- The solar radiation has a different effect on water and land on the Earth's surface.
- Sand heats up and cools faster than water.

	Day Temperature	Night Temperature
Coastal Regions	Moderate temperature (because water heats up slowly)	Moderate temperature (because water cools slowly)
Desert Regions	High temperature (because sand heats up quickly)	Low temperature (because sand cools quickly)

Experiment 2: Spinning paper spiral



What happens if?

1 You hold the paper spiral over the lighted lamp.

- The paper spiral begins to spin without stopping.

Reason:

- The warm air around the paper spiral expands and becomes less dense. So, it moves up, allowing the cooler and denser particles to move downward.

2 You sprinkle talcum powder over the hot, lighted lamp.

- The powder rises above the lighted lamp.

3 You sprinkle talcum powder over the turned of the lamp.

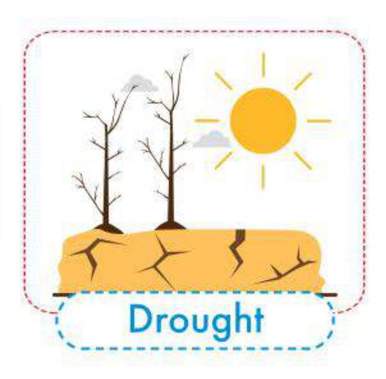
- The powder spreads and interferes with cooler air.

NOTES:

- The vertical movement of air is called the air current.
- The horizontal movement of air is called wind.



Extreme Weather Events:







- In recent years, there is an increase in the extreme weather events due to global climate change.

Extreme precipitation events cause:

- Changing ecosystems.
- Damage to human structures and agricultural systems.
- Injuries and deaths.



1 Drought:	2 Flooding:
Definition	
It is the lack (shortage) of available water in an area.	It is the overflow of water on the land around riverbanks edges.
Reasons:	
• A long period of dry weather. • There is an extended heat wave.	• Rapid increase in rainfall. • The sudden melting of snow and ice over a region.
Harms	
• There is not enough water for growing crops, farming animals, industry, and cities.	• It damages buildings by moving or breaking them. • It leads to the drowning of people and livestock • It can disrupt economies.

Concept 2

Advantages of Floods:

- Some ecosystems depend on periodic flooding, ecosystems along the Nile.



- In general, ecosystems eventually recover from flooding.
- Every few decades, very extreme floods will occur.
- Flooding is worse if the ground is frozen. Because it cannot absorb water.

3 Sandstorms: (Dust storm)

Reason (way of formation)	Sandstorms happen when very strong winds blow up sand or dust from a dry area.
Their Location	1 They are common in deserts. 2 An area that has prolonged drought.
Their Shape	A solid wall of debris and dust traveling along a horizon.
Their Size	They extended several kilometers long and hundreds of meters high, which makes them easy to see.

Harms of Sandstorms:

on Humans	1 They are dangerous to motorists and drivers because they reduce visibility and increase accidents.
	2 The dust harms your health if dust is inhaled or blown into your eyes.
on Water	3 Dust fills irrigation canals, affecting water quality.
on Energy	4 Dust builds up on solar panels, and stop generating of energy.
on Airplanes	5 It damages plane engines and stops airplane travel.

General Exercises on Concept 3.2

1 Choose the correct answer:

1. Clouds are formed when .... air is ....
   a. dry - cooled b. humid - heated
   c. dry – heated d. humid - cooled
2. A rain shadow is an area that is formed behind a ....
   a. forest b. mountain c. sea d. building
3. If the temperature at the top of a mountain is 18°C, so the temperature at its bottom might be ....
   a. 18°C b. 0°C c. 10°C d. 25°C
4. A .... is formed when a mountain range blocks the ....
   a. sandstorm - dry air b. sandstorm - humid air
   c. rain shadow - humid air d. rain shadow - dry air
5. All the following are innovative ways that are used by farmers in the desert, except ....
   a. reusing water b. using wind turbines
   c. building dams d. using solar energy
6. The .... biome receives the least amount of rainfall per year.
   a. tropical rainforest b. grassland
   c. temperate forest d. desert
7. Meteorologists are scientists who study ....
   a. rocks b. weather c. water d. plants
8. The desert biome has all the following properties, except ....
   a. little rainfall b. extreme climate
   c. arid conditions d. moderate climate
9. The temperature may reach more than 30 degrees in Aswan tomorrow. This reflects the ....
   a. humidity b. air pressure c. weather d. climate

10 Putting data on a weather map represents .... in weather prediction.

a. gathering data
b. collecting data
c. analyzing data
d. putting all together

11 Applying what meteorologists know about the effects of different landforms on weather is called ....

a. mapping data
b. analyzing data
c. collecting data
d. putting all together

12 Meteorologists use .... to measure the air temperature.

a. barometers
b. thermometers
c. satellites
d. anemometers

13 A/An .... is used to measure the current atmospheric pressure.

a. barometer
b. thermometer
c. satellite
d. anemometer

14 .... are used to measure the speed of tornado's winds.

a. Satellites
b. Thermometers
c. Radars
d. Anemometers

15 .... is the measure of the amount of water vapor in the air.

a. Precipitation
b. Humidity
c. Temperature
d. Atmospheric pressure

16 .... is the weight of the air column above a specific area.

a. Temperature
b. Gravity
c. Temperature
d. Atmospheric pressure

17 A/An .... can be used to compare the amount of precipitation in two different regions.

a. barometer
b. weather radar
c. raingauge
d. anemometer

18 A .... can carry weather measurement tools and also transmit weather data.

a. barometer
b. weather station
c. thermometer
d. satellite

19 The horizontal movement of air along the Earth's surface is called ....

a. air currents
b. atmosphere
c. wind
d. air pressure

20 .... pulls heavy water droplets in clouds downward.

a. Humidity b. Gravity c. Wind d. Sunlight

21 The formation of ice crystals occurs when the air in clouds becomes .... enough.

a. warm b. light c. cold d. hot

22 All the following are extreme weather events, except ....

a. drought b. precipitation c. flooding d. sandstorm

23 A .... looks like a solid wall of debris and dust traveling along the horizon.

a. flood b. sandstorm c. drought d. tsunami

24 The sudden melting of snow and ice over a region causes ....

a. earthquakes b. drought c. hurricanes d. floods

25 Sandstorms are most common in ....

a. polar regions b. deserts

c. rainforests d. green landscapes

26 .... may cause the drowning of people and livestock.

a. Sandstorm b. Drought c. Flooding d. Wildfire

2 Put (✓) or (✗):

1 Meteorologists can be completely sure of future weather. ( )

2 Clear sky can turn cloudy and rainy throughout the day. ( )

3 The density of cold air is less than that of hot air. ( )

4 Desert is characterized by hot and rainy climate. ( )

5 During climbing a mountain, the reading of barometer increases. ( )

6 Wind turbines can be used to operate desert farms. ( )

7 By increasing the temperature of the air, its density increases. ( )

8 Wind is created when less dense air replaces more dense air. ( )

9 When warm-moist air rises, it forms clouds. ( )

10 The solar radiation has a different effect on water and land on the Earth's surface. ( )

11 The sand absorbs heat slower than water during daytime. ( )

12 Water and sand on beach usually have the same temperature. ( )

13 Meteorologists collect data about weather conditions after analyzing them. ( )

14 Rain gauge can be used to predict precipitation for coming days. ( )

15 Anemometer can be used to track thunderstorms and hurricanes. ( )

16 A tornado's wind direction is measured by an anemometer. ( )

17 A frozen ground can absorb the water when flooding occurs. ( )

18 In general, ecosystems can recover from flooding. ( )

19 Drought and flooding have no harmful effects. ( )

20 Flooding has some benefits. ( )

3 Write the scientific term:

1 They are scientists who study and forecast the weather. (..........)

2 It is the science that studies the weather conditions. (..........)

3 It is an area on the dry side of a mountain range where rainfall is reduced. (..........)

4 It is a side of mountain ranges that faces the humid air. (..........)

5 It is a side of mountain ranges where the rain shadow is formed. (..........)

6 It is the weight of the air column above an area. (..........)

7 It is the amount of water vapor in the air. (..........)

8 It is the biome that has the least amount of rainfall on the Earth. (..........)

9 It is a device that used to measure the atmospheric pressure. (..................)

10 It is a device that used to measure the air temperature. (..................)

11 It is a device that used to measure the wind speed. (..................)

12 It is a device that used to measure the amount of precipitation. (..................)

13 It is a device that used to predict thunderstorms and hurricanes. (..................)

14 It is the horizontal movement of the air on the Earth's surface. (..................)

15 It is the vertical movement of air on Earth's surface. (..................)

16 It is the first stage in the weather prediction process. (..................)

17 It is the final stage in the weather prediction process. (..................)

18 It is lack of available water for growing crops or farming animals. (..................)

19 It is the overflow of water on the land around riverbanks due to the increase in rainfall flowing on the river. (..................)

20 It is a solid wall of debris and dust traveling along the horizon. (..................)

4 Complete the following using the words between the brackets:

A (horizontally - rain shadow - dry - increases - humid - vertically - decreases)

1 During climbing a mountain, atmospheric pressure ...., while air density .... when we go down.

2 A .... is formed when a mountain range blocks the .... air coming from a nearby ocean.

3 Desert biome has .... climate.

4 Air currents move ...., while wind moves .... on Earth.

B (shorter - Landforms - weather radar - rain gauge - Ice crystals - Clouds – longer)

1. At noon, water gets hot in a .... time than sand.
2. A rainfall can be predicted by a ...., while the amount of rainfall can be measured by a ....
3. .... are from the factors that affect the weather.
4. .... are formed when water vapor in the air is condensed.
5. .... are formed when the air in the cloud is cold enough.

C (Sandstorm - visibility - flooding - water quality - solar panels)

1. Dust storms may affect the .... in irrigation canals or build up on .... that stops generating energy.
2. Sudden melting of snow in an area may cause ....
3. .... may damage plane engines and stop airplane travel.
4. Sandstorms can reduce .... for motorists, which increase road accidents.

5 Choose from column (A) what suits it in column (B):

A

Column (A)	Column (B)
1 Wind turbines	a. the atmospheric pressure is low.
2 At the top of a mountain	b. is formed on dry side of a mountain.
3 At the bottom of a mountain	c. the air density is high.
4 Rain shadow	d. are used to power farms in deserts.

1 .... 2 .... 3 .... 4 ....

B

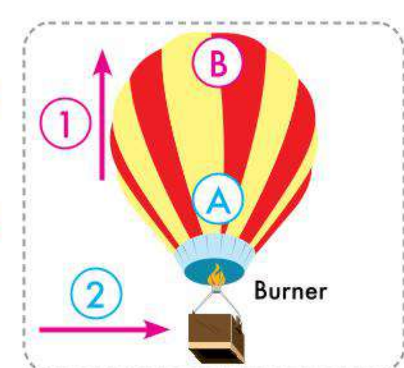
Column (A)	Column (B)
1 Heavy rain on river may cause	a. sandstorm
2 Extreme hot temperatures may cause	b. drought
3 Strong wind in desert may cause	c. flooding

1 .... 2 .... 3 ....

6 Cross out the odd word

1. Less rainfall – Dry climate – More precipitation – Arid conditions (..................)
2. Temperature – Atmospheric pressure – Barometer – Humidity (..................)
3. Thermometer – Barometer – Anemometer – Temperature (..................)
4. Satellites – Weather balloons – Thermometer – Airplane (..................)
5. Sandstorm – Precipitation – Flood – Drought (..................)

7 Study the following figure, then choose the correct answer:



1. The air in .... is warmer. (area A – area B)
2. When the air in area (A) heats up, it .... (sinks – rises)
3. When the air in area (B) cools, it becomes .... dense, so it .... (more, sinks – more, rises – less, sinks)
4. The arrow number .... represents the movement of the wind. (1 – 2)

8 Study the following figure, then choose the correct answer:

1. Area .... heats up faster. (A - B)
2. If the temperature of area (A) during the day is 30°C, then the temperature in area (B) might be ....°C. (30 - 26 - 34)
3. Area .... requires more energy to heat up. (A - B)

9 Give reasons for:

1. Farming in desert is very difficult.

   ....

   ....

2. The mountains' ranges may form the rain shadow.

   ....

   ....

3. Hot air moves up, while cold air moves down.

   ....

   ....

4. At noon, sand on the beach is hotter than the sea water.

   ....

   ....

5. The air current is different from the wind.

   ....

   ....

6. The number of extreme weather disasters is expected to increase.

   ....

   ....

7 In some countries, floods have some benefits.

....

....

8 Flooding is worse if it is happening on a frozen ground.

....

....

9 Sandstorms have harmful effects on human health.

....

....

10 Sandstorms may increase road accidents.

....

....

10 What happens to:

1 Atmospheric pressure during climbing up a mountain?

....

....

2 The temperature when descending from the top of the mountain?

....

....

3 The paper spiral when you hold it over a lighted lamp?

....

....

4 Irrigation canals when dust of a sandstorm fills them?

....

....

5 Energy generation when dust builds up on solar panels?

....

....

Answers Concept 3.2

1
1 d, 2 b, 3 d, 4 c, 5 c
6 d, 7 b, 8 d, 9 c, 10 c
11 d, 12 b, 13 a, 14 d, 15 b
16 d, 17 c, 18 d, 19 c, 20 b
21 c, 22 b, 23 b, 24 d, 25 b
26 c

2
1 ✗, 2 ✓, 3 ✗, 4 ✗, 5 ✗
6 ✓, 7 ✗, 8 ✗, 9 ✓, 10 ✓
11 ✗, 12 ✗, 13 ✗, 14 ✗, 15 ✗
16 ✗, 17 ✗, 18 ✓, 19 ✗, 20 ✓

3
1 Meteorologists
2 Meteorology, 3 Rain shadow
4 Wet side, 5 Dry side
6 Atmospheric pressure
7 Humidity, 8 Desert
9 Barometer, 10 Thermometer
11 Anemometer, 12 Rain gauge
13 Weather radar, 14 Wind
15 Air currents
16 Collecting (gathering) data
17 Put it all together
18 Drought, 19 Flooding
20 Sandstorm

4
(A) 1 decreases - increases
2 rain shadow - humid, 3 dry
4 vertically - horizontally
(B) 1 longer
2 weather radar - raingauge
3 Landforms, 4 Clouds
5 Ice crystals
(C) 1 water quality - solar panels
2 flooding, 3 Sandstorm
4 visibility

5
(A) 1 d, 2 a, 3 c, 4 b
(B) 1 c, 2 b, 3 a

6
1 More precipitation
2 Barometer, 3 Temperture
4 Thermometer
5 Precipitation

7
1 Area (B), 2 rises
3 more - sinks, 4 2

8
1 A, 2 26, 3 B

9
1 Because the amount of water that evaporates in the desert is more than water that precipitate.
2 Because the mountain range blocks the humid air.
3 Because hot air is less dense than cold air.
4 Because sand heats faster than water.
5 Because air current moves vertically while wind move horizontally.
6 Due to the global climate change.
7 Because some countries depend on periodic floods.
8 Because the frozen ground doesn't absorb water.
9 Because dust may be inhaled by human or it may go into eyes.
10 Because it decreases visibility of driver and motorists.

10
1 Atmospheric pressure will decrease.
2 The temperature will increase.
3 The paper spiral will move without stopping.
4 The water quality of irrigation canals will be affected.
5 It may stop generation of energy.

حمل الآن

مجانا وحصريا

المراجعة رقم (3)

اختبار شهر فبراير

ذاكرولي
RaNia SaYed





Model 1

Total mark
____
15

1 (A) Choose the correct answer : *(5 marks)*

1. The density of cold dry air is .... that of hot humid air.
   a. equal to b. similar to c. less than d. more than
2. Floods may occur as a result of .... and ....
   a. gentle rain – melting of snow.
   b. gentle rain – freezing of water.
   c. heavy rain – sudden melting of snow.
   d. heavy rain – little evaporation of water.
3. Precipitation process in the water cycle is usually followed by two steps which are .... and ....
   a. runoff – evaporation. b. collection – melting.
   c. runoff – collection. d. melting – freezing.
4. Heat transfers through .... and gases by ....
   a. liquids – radiation. b. liquids – convection.
   c. solids – convection. d. solids – radiation.

(B) Give a reason for the following :

When air is heated, it expands.

....

2 (A) Write the scientific term of each of the following : *(5 marks)*

1. It is a natural phenomenon in which extreme dry and hot weather affect an area for a long period of time. (........................)
2. The scientist who studies the atmosphere to understand Earth's weather. (........................)
3. It is a type of evaporation that takes place through the stomata on the plant's leaves. (........................)
4. It is the continuous movement of water among different water reservoirs. (........................)

(B) What happens to ... ?

The atmospheric pressure, as we move up toward the top of a mountain.

....

3 **(A) Put (✓) or (✗) :** *(5 marks)*

1. Sandstorms decrease the visibility during driving cars. ( )
2. Mapping data means representing data about weather conditions on a map. ( )
3. During the water cycle, condensation of water vapor occurs after precipitation process. ( )
4. Deserts are formed by the effect of moist air. ( )

(B) Give a reason for the following :

Moving down of glaciers from the top of a mountain to its foot.

....

....

Model 2

Total mark
15

1 **(A) Complete the following sentences :** *(5 marks)*

1. The amount of rain that falls on deserts is .... than that falls on other biomes.
2. At night, the sand of the seashore cools off .... than the sea water.
3. Dry air causes the formation of large areas of .... around Earth's surface.
4. Formation of fog is due to the .... of water vapor on a field in early morning.

(B) Choose from column (B) what suits it in column (A) :

Devices	Uses
1. Anemometer 2. Weather radar	a. measuring the atmospheric pressure. b. measuring the speed of wind. c. measuring the speed and intensity of precipitation.

1. .... 2. ....

2 **(A) Put (✓) or (✗) :** *(5 marks)*

1. Although flooding is harmful, it also has some benefits. ( )
2. The air becomes more dense at the top of a mountain compared to the bottom of this mountain. ( )
3. States of water change when water gains or loses energy. ( )
4. Due to radiation currents, warm water moves above cold water. ( )

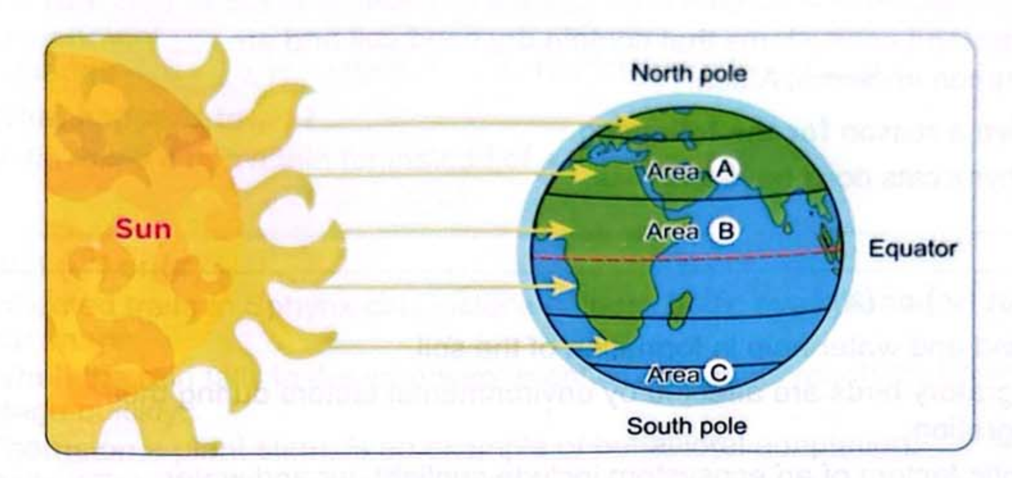
(B) Cross out the odd words :

1. Snow – Rain – Hail – Water vapor. (..........................)
2. Evaporation – Transpiration – Condensation – Melting. (..........................)

3 (A) Write the scientific term of each of the following : *(5 marks)*

1. The force that pulls big and heavy water droplets toward the ground causing precipitation. (..................)
2. The phenomenon that occurs as a result of descending warm and dry air at the dry side of a coastal mountain range. (..................)
3. A structure found on plant leaves responsible for losing water vapor during transpiration process. (..................)
4. It is formed from millions of tiny water droplets which are condensed from water vapor in the sky. (..................)

(B) Look at the following figure, then choose the correct answer :



1. The weather in area (A) is .... (hot – warm – very cold)
2. The sun rays fall perpendicular on area .... (A – B – C)

حمل الآن
مجانا وحصريا

المراجعة رقم (4)

اختبار شهر فبراير





Question 1 choose the correct answer

Concept 3.1

1- In winter, rain falls due to........... process

(a) Condensation (b) Evaporation
(c) Collection (d) precipitation

2- When water runs through a river then into a sea, this step is called.........

(a) Runoff (b) Condensation
(c) Precipitation (d) evaporation

3- Moderate regions are areas in which the evaporation process is

(a) the greatest (b) the smallest
(c) Moderate (d) absent

4- Large numbers of flamingos migrate and reproduce in the large salty lake in Turkey, when the weather is

(a) Cold (b) Warm
(c) very hot (d) very cold

5- Precipitation process in the water cycle is usually followed by two steps which are.... ...... and.........

(a) runoff – evaporation (b) collection – melting
(c) runoff – collection (d) melting-freezing

6- Gathering the water of rains to form stream, rivers or lakes is called

(a) Precipitation (b) Condensation
(c) Collection (d) evaporation

7- Leakage of water into groundwater reservoirs is due to the action of.....

(a) Condensation (b) Gravity
(c) Precipitation (d) evaporation

8- All the following are examples of water reservoirs on Earth, except.........

(a) Seas (b) Glaciers
(c) Moon (d) living organisms



9- Both of....... and..... processes happen due to the decrease of thermal energy

(a) melting-freezing (b) melting-condensation
(c) freezing-condensation (d) melting - evaporation

10- The evaporation of water from the leaves of plants is called

(a) Transpiration (b) Collection
(c) Melting (d) freezing

إستخدمني

11- Clouds are formed due to............. process

(a) Melting (b) Collection
(c) condensation (d) precipitation

12- Due to convection, ...air moves upward above.............. air

(a) cold – hot (b) hot – cold
(c) cold-warm (d) warm-hot

13- Water in oceans changes into.......... when water gains thermal energy

(a) liquid water (b) water vapor
(c) Snow (d) sleet

14- The weather of the areas near the equator is

(a) hot and humid (b) hot and snowy
(c) warm and humid (d) warm and snowy

15- Heat transfers through.......... and gases by............

(a) liquids – radiation (b) solids – convection
(c) solids – radiation (d) liquids - convection

16- When the sun rays fall semi-inclined on Earth's surface, it is distributed on a large area giving........... effect of heat and the weather becomes.......

(a) high-warm (b) low-warm
(c) high – cold (d) low - cold

17- Wind is produced by the help of..........

(a) water turbine (b) electric generator
(c) solar radiation (d) electric motor.

18- When warm air is cooled, it will move............

(a) Upward (b) Downward
(c) Forward (d) backward

19- The ....air causes the formation of many desert areas around Earth's surface.

(a) Cold (b) Moisted
(c) Dry (d) dusty

20- Wind is formed when.............rises up and replaced by ....that flows from nearby areas

(a) warm air-cold air (b) warm water - cold water
(c) cold water-warm water (d) cold air-warm air

21- The three main steps make up water cycle are..................

(a) Evaporation - condensation – runoff
(c) Melting - condensation – evaporation
(b) Melting - runoff condensation
(d) Precipitation - runoff - evaporation

استويت

22- Evaporation refers to the transformation from to state ....state to ....state

(a) a liquid a solid (b) a solid a liquid
(c) a liquid a gas (d) a solid a gas

23- Transpiration represents...............of water vapor in the air

(a) 5% (b) 10%
(c) 20% (d) 40%

24- The.............forms when many tiny water droplets together

(a) Rain (b) Cloud
(c) Water vapor (d) Fog

المعركة صعبة انا
عارف بس انت
اشطر كتكوت
ومش هتستسلم

25- The water changes from liquid to gas by.............process

(a) Melting (b) Condensation
(c) Evaporation (d) freezing

26- The flamingos feed on.............

(a) algae (b) Weed
(c) Mouse (d) rabbit

27- The.............causes liquid water to percolate down into the ground

(a) Gravity (b) heat energy
(c) Light (d) Sound

28- The............transfers energy between water reservoirs on the earth surface.

(a) wind (b) Gravity
(c) Light (d) Sound

Concept 3.2

29- Desert farming depends on the maximum use of. ...., as its quantity is very small.

(a) Sand (b) Sunlight
(c) Water (d) winds

30- At the top of the mountain, the atmospheric pressure is..........and the temperature is...........compared to the bottom of the mountain

(a) lower-lower (b) higher – higher
(c) lower – higher (d) higher - lower

31- The density of cold dry air is............ that of hot humid air

(a) more than (b) equal to
(c) less than (d) similar to

32- In rain shadow phenomenon, the dry side of a coastal mountain range is formed due to..................

(a) rising of humid air
(b) rising of dry air
(c) descending of humid air.
(d) descending of dry air

33- The side of coastal mountain ranges in which humid air moves up when hitting a mountain is the........... side, while the other side is the........... side.

(a) wet – dry
(b) dry – wet
(c) dry – dry
(d) wet - wet

34- If the temperature at the bottom of a mountain is 15°C, this means it may reach.............^{0}C at the top of this mountain.

(a) 30
(b) 25
(c) 20
(d) 2

35- The change of water from gas state to liquid state is known as........ process

(a) Evaporation
(b) Melting
(c) Condensation
(d) freezing

36- In hot deserts,.................

(a) water evaporation is less than water precipitation
(b) water evaporation is equal to water precipitation
(c) water precipitation is more than water evaporation
(d) water precipitation is less than water evaporation

37- To forcast the weather, the weather data are................

(a) collected only
(b) analized only
(c) collected and analized
(d) collected, analized and put it all together

38- The barometer is used to measure...............

(a) atmospheric temperature
(b) atmospheric pressure
(c) Mass
(d) length

39- ....cannot be used to carry thermometers and barometers into the atmosphere to measure weather conditions

(a) Satellites (b) Weather balloons
(c) Airplanes (d) Birds

40- Which one of the following statements about thermometer and barometer, is correct?

(a) Both of them are used to measure the atmospheric temperature.
(b) Both of them are used to measure the atmospheric pressure.
(c) They cannot be carried on an airplane or a satellite
(d) They have two different functions

41- Land heats up.... and cools off........... compared to that of water

(a) quickly – quickly (b) slowly – slowly
(c) quickly – slowly (d) slowly - quickly

42- When the Sun sets on a beach, the temperature of

(a) both the land and water increases
(b) both the land and water decreases
(c) the land increases, while that of water decreases
(d) the land decreases, while that of water increases

43- If the temperature of the sand in a desert is 50°C at noon, its temperature may reach ....°C at night

(a) 20 (b) 60
(c) 70 (d) 80

44- ....is a tool that is used to express the weather conditions

(a) Humidity (b) Weather balloon
(c) Precipitation (d) Wind

45- The cold air is............ and always..............

(a) less dense - moves down (b) less dense - moves up
(c) more dense - moves up (d) more dense - moves down

46- Convection currents occur in the atmosphere when.......

(a) cold air rises up and warm air falls down

(b) warm air rises up and cold air falls down

(c) both cold air and warm air rise up

(d) both cold air and warm air fall down

47- Convection currents in the atmosphere are controlled by...........

(a) precipitation process

(b) moon's rotation

(c) the thermal energy from the Sun

(d) the light energy from the moon

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48- Heat is transferred through the atmosphere by...........

(a) Convection (b) Conduction

(c) Reflection (d) absorption

49- The tool that is used to measure the speed of precipitation is

(a) Anemometer (b) Barometer

(c) Thermometer (d) weather radar

50- .... happens due to the shortage of water in an area for a long period of time

(a) Flooding (b) Snowfall

(c) Drought (d) Sandstorm

51- The increase in the amount of rain for a long period of time may cause........

(a) Flooding (b) Sandstorm

(c) Drought (d) dust storm

52- Drought affects all the following, except

(a) People (b) Plants

(c) Buildings (d) animals

مراجعات النخبة

53- Floods may occur as a result of......... And..............

(a) gentle rain - melting of snow

(b) heavy rain - sudden melting of snow

(c) gentle rain - freezing of water

(d) heavy rain - little evaporation of watar

54- During driving a car, if the visibilty range in normal sunny weather is up to 3 km, during a sandstorm the visibilty range on the same road.........

(a) will increase
(b) will not change
(c) will be 1 km or less.
(d) will be 4 km.

55- Extreme weather conditions include all the following, except.....

(a) Drought
(b) Flooding
(c) Sandstorm
(d) sunrise

56- The.............is using in determine wind speed

(a) Anemometer
(b) barometer
(c) Radar
(d) thermometer

57- The ....is the amount of water vapor present in the air

(a) air density
(b) atmospheric pressure
(c) humidity
(d) temperature

58- The air particles density increases at the ..of the mountain.

(a) Top
(b) Bottom
(c) Middle
(d) higher

59- The.......is one of the tools that designed to carry measuring tools

(a) weather balloons
(b) barometer
(c) rain gauge
(d) thermometer

Question 2 Put (✓) or (✗) To the following statement **Concept 3.1**

1) Drying up of water in the large salt lake in Turkey is due to condensation process. (   )



2)	Transferring of energy in the water cycle causes increasing or decreasing of water level in some lakes	( )
3)	In the water cycle, the step that follows condensation process is runoff	( )
4)	Hottest regions are regions in which the evaporation process is the greatest	( )
5)	Water cycle affects the weather on Earth.	( )
6)	Winds cause ocean currents that transport water to different places on Earth's surface.	( )
7)	The water cycle is the movement of water through different water reservoirs on Earth	( )
8)	The two factors that control the movement of water in the water cycle are gravity force and solar energy	( )
9)	Glaciers move from the top of mountains to the bottom of mountains due to the effect of gravity	( )
10)	The motion of air from one place to another leads to changing of water vapor into water in the air.	( )
11)	Melting and transpiration processes only occur by cooling	( )
12)	As a result of low temperature, water returns back into water vapor.	( )
13)	When water vapor cools in the sky, it forms clouds.	( )
14)	The heat of the Sun transfers through space to Earth's atmosphere by convection.	( )
15)	The cold air is replaced the cold air	( )
16)	Transpiration from plant leaves decreases in the morning	( )
17)	In condensation process, water vapor gains energy	( )

18)	Water cycle is the movement of water between different reservoirs	( )
19)	Evaporation occurs as a result of gaining heat energy	( )
20)	Small lakes dry as a result of the runoff	( )
21)	Condensation occurs when a gas is heated and turning to a liquid	( )
22)	Convection currents in atmosphere help in determining regional climates.	( )
23)	When fresh water changes into snow and ice, this means that fresh water gains thermal energy.	( )
24)	Rains fall and collect in oceans by the effect of gravity force	( )
25)	The weather in the area near the equator is very cold due to falling of sun rays perpendicular on Earth's surface.	( )
26)	When the sun rays fall semi-inclined on Earth's surface, they will distribute on a large area giving low effect of heat.	( )
27)	The temperature is equal at all areas on Earth's surface	( )
28)	Rivers and some lakes are from the sources of water that we need to survive	( )
29)	Hot air has higher density (heavier) than that of cold air, so it rises up to the atmosphere	( )
30)	Solar energy is the main energy that causes the movement of convection currents in atmosphere and oceans	( )
31)	Unequal heating of Earth between the poles and the equator generates wind	( )
32)	weather condition will not be affected by the absence of wind.	( )
33)	Flamingos immigrate to a salt lake in Turkey, but it suddenly dried.	( )
34)	The flamingos feed on algae in the fresh water	( )

35)	Climate changes affect the breeding of flamingos	( )
36)	Solar energy is distributed in equal amounts on the earth surface	( )
37)	Evaporation is the transformation of water from a liquid to a gas	( )
38)	The runoff is the flow of water under earth surface after precipitation	( )
39)	Oceans are the main source of evaporation in water cycle	( )
40)	Climate changes effect on water cycle	( )
41)	The evaporation process occurs by losing energy	( )
42)	The wind transfers energy between water reservoirs on the earth surface	( )
43)	The wind is formed by cold air rises up word then replaced by hot air	( )
44)	Earth revolving is a reason for wind direction determination	( )
45)	Heat transfers from hot water to cold water	( )
46)	The volume of water in a puddle increases by increasing the runoff	( )
47)	Water cycle drives to conserve water percentage on Earth	( )
48)	The convection causes water to move through the water cycle in nature	( )
49)	Hot air is more dense than cold water.	( )
50)	The convection currents moves vertically	( )
51)	The convection currents moves horizontally	( )
52)	Warm moist air is denser than cold one	( )

Concept 3.2

53)	Dropping water level in lakes as a result evaporation	( )
54)	The rain never falls on deserts	( )
55)	The main challenge that faces people in deserts, is the low amount of water	( )
56)	The air becomes more dense at the top of a mountain compared to the bottom of this mountain	( )
57)	Solar energy and wind turbines can be used to operate desert farms	( )
58)	The properties of the atmosphere at the top of a mountain and at its bottom are similar	( )
59)	Reusing water is a useful way to irrigate crops in desert farms	( )
60)	Condensation of water vapor in atmosphere happens due to the increasing of the air temperature	( )
61)	Humidity represents the amount of moisture presents in the air	( )
62)	The temperatures of both water and sand Increase at the same rate when they are exposed to the same amount of heat	( )
63)	Mapping data means representing data about weather conditions on a map	( )
64)	The movement of air cannot be predicted by using weather map	( )
65)	Sometimes meteorologist could not predict the weather due to unexpected quick changes happen in the weather condition	( )
66)	When air is coold its molecules spread away from each others	( )
67)	By increasing the temperature of air, its density decreases	( )
68)	Convection currents in the atmosphere are usually controlled by Earth's rotation	( )

69)	Convection currents are related to the horizontal movement of air	( )
70)	The lighted bulb releases heat which rises the temperature of air around the bulb	( )
71)	The direction of wind movement is affected by the difference of air temperature	( )
72)	Anemometer is used to measure the speed of precipitation	( )
73)	Rain guage and weather radar have the same function	( )
74)	The hand that is placed above a lighted candle feels hot because hot air has high density so it moves up	( )
75)	Heavy rain may cause extreme drought condition	( )
76)	Dust storms have no harmful effects on the plane engines	( )
77)	When rain doesn't fall for a long period of time, soil may get dry and plants may die.	( )
78)	Although flooding is harmful, it also has some benefits	( )
79)	Sandstorms blow up from a dry area such desert	( )
80)	Floods may cause death of people and animals.	( )
81)	Using solar panels is a way of developing farming methods	( )
82)	A rain shadow occurs in the windward side	( )
83)	Atmospheric pressure decreases as we going higher	( )
84)	Weather is an atmosphere condition during long period of time	( )
85)	Atmosphere properties at the top of a mountain differ than its properties at the bottom	( )

Question 3 — Complete the following sentences

Concept 3.1

1)	Flamingos migrate to the large salt lake in Turkey when the weather becomes (..........), and they feed on (.........). which are found in this lake.
2)	Formation of fog is due to the (.........) of water vapor on a field in early morning
3)	Water is changed from (.........) state into (.........) state during evaporation process
4)	The movement of water through different water reservoirs on Earth is called the (.........)
5)	Transpiration is a form of.(.........) process, while condensation takes place by the decrease in the (.........)energy
6)	Water vapor comes out from plant leaves through the (.........)
7)	When (.........) in air hits a cold glass of juice, it will condense
8)	When the water droplets in the clouds become too heavy, it causes(.........) process
9)	The moist air contains a large amount of (.........)
10)	When a gas or a liquid is heated, its density will (.........)
11)	The (.........) air rises up.
12)	The weather of the regions near equator is more (.........)
13)	The (.........) is considered the main drive the cycling of wind around Earth
14)	The (.........) air goes down
15)	The tiny water droplets have condensed out of the air forming (.........)

16)	Water collects in some water reservoirs such as (.........),(.........)and living organisms
17)	Heat can transfer through Earth's atmosphere due to the effect of (.........)currents
18)	The difference in the (.........) and (.........) in water of oceans and atmosphere occurs due to the unequal heating of land and oceans
19)	Fresh water changes into water vapor when it (.........)thermal energy, while fresh water changes into (..................when it loses thermal energy
20)	Rain water is collected in oceans by the effect of (.........)force
21)	The weather of the area far away from the equator is (.........)because the sun rays fall (..................)on Earth's surface at this area
22)	Cold water has more (.........)than warm water, so it moves under the warm water
23)	The Sun produces the energy which causes the movement of (.........)currents that produces ocean currents and(.........)
24)	Due to convection currents, hot air moves (.........) cold air
25)	The global wind system of Earth consists of (.........) that blow in a constant (.........) over long periods of time
26)	The direction of wind is determined by the amount of (.........) received by Earth and (.........) of Earth
27)	When warm air contains enough water vapor, it loses this water in the form of (.........)
28)	The water level of a lake decreases as a result of (.........)
29)	The most important source of energy in water cycle is (.........)
30)	From the environmental challenge that faces flamingos is (..................................)

31)	Solar energy may distribute to (.........) regions and (.........) Regions
32)	The two basic factors for water cycle are (.........) and (.........)
33)	Water state changes in water cycle by (.........) and (.........) energy
34)	The processes that need losing energy of water in water reservoirs are (.........) and (.........)
35)	The direction of wind is determined by two factors (a.........)and (.........)
36)	The cold gases are (.........) dense than the warm gases
37)	The(.........)air forms deserts
38)	The regions near the(.........)are very hot
39)	The convection currents move in(.........) direction
40)	When we put a blue jar with hot water on the top of a red jar with cold water, the colors (.........))
41)	The warm moist air is(.........) dense
42)	The condensation process is accompanied with (.........) energy
43)	The processes that need gaining energy of water in water reservoirs are (.........) and (.........)
44)	The amount of rain that falls on deserts is (.........) than that falls on other biomes
45)	The amount of water that evaporates is (.........) than the amount of rain that falls on deserts.
46)	The scientist who studies the changes of Earth's (.........) is called meteorologist
47)	At the bottom of a mountain, the air density is(.........)than that at its top.

إجمد كده لأ متعيطش!

Concept 3.2

48)	Farmers in desert may use the(.........) energy produced from the Sun to power their farms.
49)	As you climb to the top of a mountain, the air density will (.........–) while as you move down toward the bottom of it,(_.........) the air temperature will
50)	When the hot and humid air meet the cold and dry air, the (.................)air rises.
51)	At night, the sand on the seashore cools off (.........) than the sea water.
52)	At noon, sand gets hot in a (.........) time than water
53)	The temperatures of both water and sand (.........) in the presence of a source of heat
54)	Sea water is heated up slowly and cools off (.........)
55)	The thermometer is used to measure (.........) while the barometer is used to measure (.........)
56)	Gases and liquids expand by (.........) and contract by cooling
57)	When air is heated, it expands as its (.........) move away from each other.
58)	The horizontal movement of air is called (.........), whereas the vertical movement of air is called (.........)
59)	Extreme hot temperatures for a long period of time, may cause (.........)
60)	Heavy rain for a long period of time, may cause (.........)
61)	Sandstorms (.........) the chances of car accidents.
62)	Dust storms (.........) the water quality in irrigation canals
63)	Floods result in formation of (.........) lands.

64)	Strong winds may blow up sand from a (.........)area such as deserts
65)	When air is heated, it (.........)
66)	The thermometer is uses in measuring (.........)
67)	Devices that carry the measurement tools are (.........) , (.........) and (..................)
68)	Using (..................) is the most effective way in analyzing the collected data
69)	The very tall mountains often have two sides, one is(......... (.........))wind and the other is (.........) of wind
70)	One of the characteristics of desert soil it is a (.........) fertility soil
71)	Air pressure at the top of the mountain is (.........)than air pressure at the bottom of the mountain
72)	One of the difficulties that farmers face while farming in the deserts is (.........)

Question 4 Write the scientific term for each of the following

Concept 3.1

1)	The main source of energy that affects the water cycle	(...............)
2)	It is the process in which matter changes from gas state to liquid state.	(...............)
3)	It is the step in which water flows along Earth's surface into the river and then into the ocean or sea	(...............)
4)	They are the places of storing water on Earth	(...............)
5)	A process that plants get rid of exceeds water in water vapour form through spores	(...............)

6)	The process that occurs when the water droplets which forming clouds become heavier and fall down by gravity.	(…………….)
7)	A liquid turns inti a gas by gaining energy	(…………….)
8)	The force which causes moving down of water from higher places to lower places on Earth	(…………….)
9)	It is the process which helps in formation of clouds in the sky	(…………….)
10)	The cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to Earth in the form of rain, sleet or snow	(…………….)
11)	It is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down	(…………….)
12)	It is caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas	(…………….)
13)	It is the main source that is responsible for warming of air and forming wind.	(…………….)
14)	Large areas of land that are formed due to the effect of dry air.	(…………….)
15)	A process that causes entering water to the atmosphere in a form of water vapor	(…………….)
16)	A phenomenon that occurs as a result of descending warm and dry air at the dry side of a coastal mountain range. Concept 3.2	(…………….)
17)	The side of mountain ranges at coastal regions that faces the coast	(…………….)
18)	The side of mountain ranges at coastal regions in which the rain shadow phenomenon occurs	(…………….)

19)	The scientist who uses a variety of tools and instruments to study and forecast weather	(..............)
20)	The device that is used to measure atmospheric pressure	(..............)
21)	The device that is used to measure temperature.	(..............)
22)	It is the weight of the air above an area	(..............)
23)	It is a type of maps that meteorologists use to collect and analyze data about weather.	(..............)
24)	The falling of snow to the Earth's surface, when water droplets in clouds are changed into ice crystals	(..............)
25)	The vertical movement of air in the atmosphere	(..............)
26)	The horizontal movement of air in the atmosphere	(..............)
27)	The tool that is used to measure the intensity and speed of precipitation	(..............)
28)	The tool that is used to measure the amount of rain in a certain area	(..............)
29)	The force that pulls big and heavy water droplets toward the ground causing precipitation	(..............)
30)	It is a natural phenomenon in which extreme dry and hot weather affect an area for a long period of time	(..............)
31)	It is a natural phenomenon in which the level of water in a river increases until it overflows onto its banks	(..............)
32)	It is a natural phenomenon in which very strong winds blow up dust that reduces the visibility during driving cars	(..............)
33)	The weight of the air above a location	(..............)
34)	The amount of water vapor that presents in air	(..............)

35)	The science of studying and predicting the weather	(...............)
36)	The scientist who uses different tools for study and predict weather	(...............)
37)	The amount of force that air effects on the surrounding environment	(...............)

Question 5 Give reason for the following

Concept 3.1

1. Drying up of the large salt lake in Turkey in summer season
   - ....
2. Formation of fog in the early morning.
   - ....
3. Changing of water from one state to another
   - ....
4. Moving down of glaciers from the top of a mountain to its foot
   - ....
5. Changing of some amount of water in water bodies into water vapor
   - ....
6. About 10٪ of water vapor in air comes from plants.
   - ....
7. Formation of clouds in the sky.
   - ....
8. Hot air moves upward above cold air
   - ....
9. The weather in the area near the equator is hot.
   - ....
10. The effect of heat is low in the area at the north and south of the equator
   - ....



11. The difference in temperature and densities in water of oceans and atmosphere.

- ....

12. The water cycle is very important for all living organisms on Earth's surface

- ....

13. The regions near the two poles are very cold

- ....

14. The regions near the equator are very hot

- ....

15. Dry air forms deserts.

- ....

16. On adding warm water to cold water without shaking, the warm water stay above cold water without mixing

- ....

17. The formation of wind is determined by the amount of solar radiation received by Earth

- ....

18. Ice crystals and water droplets in clouds fall back again to earth

- ....

19. Water percolates down into the ground

- ....

20. Living organisms are considered a part of water cycle on earth surface

- ....

21. Ice crystals and water droplets in clouds fall back again to earth

- ....

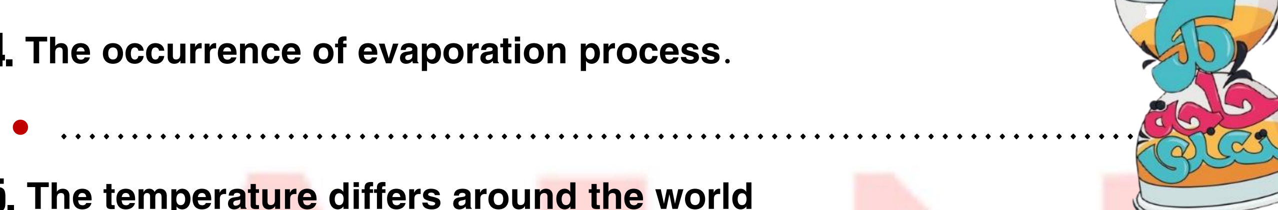
22. Water percolates down into the ground

- ....

23. Deserts get very little rain

- ....

24. The occurrence of evaporation process.



- ....

25. The temperature differs around the world



- ....

Concept 3.2

26. Desert farming faces many difficulties

- ....

27. The land of the side of a coastal mountain range that is away from the coast is usually dry

- ....

28. Hot air moves up, while cold air moves down.

- ....

29. In the summer days at noon, we may not be able to stand barefoot on the sand of a beach but we can swim in the sea water

- ....

30. Sometimes meteorologists could not predict the weather of next days.

- ....

31. We put thermometer in weather ballon.

- ....

32. When air is heated, it expands

- ....

33. Convection currents in the atmosphere are considered as vertical movements of air

- ....

34. The bigger and heavier water droplets are falling down to the Earth's surface causing precipitation

- ....

35. Extreme weather phenomena became more stronger in many places around the world

- ....

36. Floods have some benefits

- ....

37. Sandstorms have harmful effects on human health

- ....

38. Flooding is more dangerous if the ground is frozen

- ....

39. It is easy to see a sandstorm from a long distance.

- ....

40. When hot air loses its heat, it descends.

- ....

41. Snow forms on the top of the mountain while the water remain liquid at the bottom

- ....

42. Meteorologists represent weather forecasts as probability ratios

- ....

Question 6 — What happen when — Concept 1.3

1. The snow when sunlight falls on it

- ....

2. Place a blue jar with hot water on the top of a red jar with cold water (relative to mixing colors)

- ....

3. The difference of air particles temperature (relative to convection currents)

- ....

4. Water of seas and oceans gains large amount of thermal energy.

- ....

5. You cover some leaves in a plant with a plastic bag, then put this plant in the direct sunlight for awhile

- ....

6. Very dry wind blows over an area of the land

- ....

7. Very dry wind blows over an area of the land.

- ....

8. The difference of air particles temperature (relative to movement)

- ....

9. Moist air touches a cold bottle of water

- ....

10. Water vapor in air condenses in the sky

- ....

11. The water droplets in the clouds become very heavy

- ....

12. The weather if the sun rays fall very inclined on an area

- ....

13. The density of air if the cold air is warmed by the effect of solar energy

- ....

14. The air temperature if there is no wind on Earth

- ....

15. The movement of air when solar radiation heats up the air in an area

- ....

16. Water gains high heat energy.

- ....

17. The evaporation of water in the lake increases

- ....

18. A lake is subjected to very hot temperature

- ....

هذا هو البهريز الفلسفي..

19. The evaporation of water in the lake increases.

- ....

20. The surface water exposes to high temperature from the sun

- ....

21. Water runs off the land

- ....

22. Water runs off the land

- ....

Concept 3.2

23. The atmospheric pressure, as we move up toward the top of a mountain.

- ....

24. The air density, as we move down toward the bottom of a mountain

- ....

25. The temperature of water inside a beaker if we put it under a lighted lamp for 15 minutes

- ....

26. The temperature of hot sand in aa desert at night

- ....

27. The water movements when boiling it in a pot

- ....

28. The buildings when they are subjected to strong floods

- ....

29. The solar panels when dust accumulates on them.

- ....

30. Rising higher in relation to atmospheric pressure and temperature

- ....

31. The air cools and water vapor condenses at the sky

- ....

32. The amount of water vapor in the air increases

- ....

Question 7 — correct underline word

1)	In the water cycle, the step that follows condensation process is runoff	(.............)
2)	Falling of hail in coolest regions is an example of evaporation process.	(.............)
3)	The amount of thermal energy that reaches the water bodies on Earth's surface affects the rate of condensation process in the water cycle	(.............)
4)	Electricity is the force which causes moving down of water from higher places to lower places on Earth.	(.............)
5)	Dry air causes the formation of large areas of rainforests around Earth's surface	(.............)
6)	When the air is heated, it moves forward.	(.............)
7)	Wind is formed due to electric generators that reaches Earth from the Sun.	(.............)

Question 8 — Vairous questions

1. Rearrange the following steps that show how does wind form

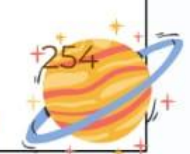
( ) The cold air replaces the hot air

( ) The air is heated by the effect of Sun's radiation.

( ) The hot air rises up

2. (explain) the importance of convection currents

- ....



3. How does the amount of solar energy effects the transpiration rate of plant leaves?

- ....

4. What is the relation between the convection and the condensation?

- ....
- ....

5. Answer the following questions

a) Explain the role of gravity in water cycle in the nature.

- ....

b) Explain the role of the sun in water cycle in the nature

- ....

6. Mention the steps of studying weather

(1) ....
(2) ....
(3) ....

7. Mention the importance of weather radar?

- ....

8. The importance of weather balloons?

- ....



صَباح الخَير
إنَّ الله سبحانَهُ يَرَى كُل
مَا تمُرّون بِهِ وهَذا سببٌ
كافٍ كَي تَستَمروا رَغم كُلّ
شَيء ، فإنهُ لن يترككم
دون أن يُكرمكم
ويُكافئكم على صبركم وَ
عزيمَتكم ، أتمنّى لَكم
صبَاحاً لطيفاً مِثل قلُوبكم

Question 1 choose the correct answer

Concept 3.1

1- In winter, rain falls due to........... process
(a) Condensation (b) Evaporation
(c) Collection (d) precipitation

2- When water runs through a river then into a sea, this step is called.........
(a) Runoff (b) Condensation
(c) Precipitation (d) evaporation

3- Moderate regions are areas in which the evaporation process is
(a) the greatest (b) the smallest
(c) Moderate (d) absent

4- Large numbers of flamingos migrate and reproduce in the large salty lake in Turkey, when the weather is
(a) Cold (b) Warm
(c) very hot (d) very cold

5- Precipitation process in the water cycle is usually followed by two steps which are.... ...... and.........
(a) runoff – evaporation (b) collection – melting
(c) runoff – collection (d) melting-freezing

6- Gathering the water of rains to form stream, rivers or lakes is called
(a) Precipitation (b) Condensation
(c) Collection (d) evaporation

7- Leakage of water into groundwater reservoirs is due to the action of.....
(a) Condensation (b) Gravity
(c) Precipitation (d) evaporation

8- All the following are examples of water reservoirs on Earth, except.........
(a) Seas (b) Glaciers
(c) Moon (d) living organisms

9- Both of....... and..... processes happen due to the decrease of thermal energy

(a) melting-freezing (b) melting-condensation
(c) freezing-condensation (d) melting - evaporation

10- The evaporation of water from the leaves of plants is called

(a) Transpiration (b) Collection
(c) Melting (d) freezing

إستخدمني

11- Clouds are formed due to............. process

(a) Melting (b) Collection
(c) condensation (d) precipitation

12- Due to convection, ...air moves upward above.............. air

(a) cold – hot (b) hot – cold
(c) cold-warm (d) warm-hot

13- Water in oceans changes into.......... when water gains thermal energy

(a) liquid water (b) water vapor
(c) Snow (d) sleet

14- The weather of the areas near the equator is

(a) hot and humid (b) hot and snowy
(c) warm and humid (d) warm and snowy

15- Heat transfers through.......... and gases by............

(a) liquids – radiation (b) solids – convection
(c) solids – radiation (d) liquids - convection

16- When the sun rays fall semi-inclined on Earth's surface, it is distributed on a large area giving........... effect of heat and the weather becomes.......

(a) high-warm (b) low-warm
(c) high – cold (d) low - cold

17- Wind is produced by the help of..........

(a) water turbine (b) electric generator
(c) solar radiation (d) electric motor.

18- When warm air is cooled, it will move…………

(a) Upward (b) **Downward**
(c) Forward (d) backward

19- The ………air causes the formation of many desert areas around Earth's surface.

(a) Cold (b) Moisted
(c) **Dry** (d) dusty

20- Wind is formed when…………rises up and replaced by ……..that flows from nearby areas

(a) **warm air-cold air** (b) warm water - cold water
(c) cold water-warm water (d) cold air-warm air

21- The three main steps make up water cycle are………………

(a) **Evaporation - condensation – runoff**
(c) Melting - condensation – evaporation
(b) Melting - runoff condensation
(d) Precipitation - runoff - evaporation

استويت

22- Evaporation refers to the transformation from to state …………state to ……..state

(a) a liquid a solid (b) a solid a liquid
(c) **a liquid a gas** (d) a solid a gas

23- Transpiration represents……………of water vapor in the air

(a) 5٪ (b) **10٪**
(c) 20٪ (d) 40٪

24- The………….forms when many tiny water droplets together

(a) Rain (b) **Cloud**
(c) Water vapor (d) Fog

المعركة صَعبة انا
عارف بس انت
اشطركتكوت
ومش هتستسلم

25- The water changes from liquid to gas by.............process

(a) Melting (b) Condensation

(c) **Evaporation** (d) freezing

26- The flamingos feed on.............

(a) **Algae** (b) Weed

(c) Mouse (d) rabbit

27- The.............causes liquid water to percolate down into the ground

(a) **Gravity** (b) heat energy

(c) Light (d) Sound

28- The............transfers energy between water reservoirs on the earth surface.

(a) **Wind** (b) Gravity

(c) Light (d) Sound

Concept 3.2

29- Desert farming depends on the maximum use of. ...., as its quantity is very small.

(a) Sand (b) Sunlight

(c) **Water** (d) winds

30- At the top of the mountain, the atmospheric pressure is..........and the temperature is...........compared to the bottom of the mountain

(a) **lower-lower** (b) higher – higher

(c) lower – higher (d) higher - lower

31- The density of cold dry air is............ that of hot humid air

(a) **more than** (b) equal to

(c) less than (d) similar to

32- In rain shadow phenomenon, the dry side of a coastal mountain range is formed due to..................

(a) rising of humid air (b) rising of dry air

(c) descending of humid air. (d) **descending of dry air**

33- The side of coastal mountain ranges in which humid air moves up when hitting a mountain is the………… side, while the other side is the………… side.

(a) wet – dry (b) dry – wet
(c) dry – dry (d) wet - wet

34- If the temperature at the bottom of a mountain is 15°C, this means it may reach…………… ^{0}C at the top of this mountain.

(a) 30 (b) 25
(c) 20 (d) 2

35- The change of water from gas state to liquid state is known as……… process

(a) Evaporation (b) Melting
(c) Condensation (d) freezing

36- In hot deserts,………………

(a) water evaporation is less than water precipitation
(b) water evaporation is equal to water precipitation
(c) water precipitation is more than water evaporation
(d) water precipitation is less than water evaporation

37- To forcast the weather, the weather data are………………

(a) collected only
(b) analized only
(c) collected and analized
(d) collected, analized and put it all together

38- The barometer is used to measure……………

(a) atmospheric temperature (b) atmospheric pressure
(c) Mass (d) length

39- ………cannot be used to carry thermometers and barometers into the atmosphere to measure weather conditions

(a) Satellites (b) Weather balloons
(c) Airplanes (d) Birds



40- Which one of the following statements about thermometer and barometer, is correct?

(a) Both of them are used to measure the atmospheric temperature.

(b) Both of them are used to measure the atmospheric pressure.

(c) They cannot be carried on an airplane or a satellite

(d) They have two different functions

41- Land heats up.... and cools off........... compared to that of water

(a) quickly – quickly (b) slowly – slowly

(c) quickly – slowly (d) slowly - quickly

42- When the Sun sets on a beach, the temperature of

(a) both the land and water increases

(b) both the land and water decreases

(c) the land increases, while that of water decreases

(d) the land decreases, while that of water increases

43- If the temperature of the sand in a desert is 50°C at noon, its temperature may reach ....°C at night

(a) 20 (b) 60

(c) 70 (d) 80

44- ....is a tool that is used to express the weather conditions

(a) Humidity (b) Weather balloon

(c) Precipitation (d) Wind

45- The cold air is............ and always..............

(a) less dense - moves down (b) less dense - moves up

(c) more dense - moves up (d) more dense - moves down

46- Convection currents occur in the atmosphere when.......

(a) cold air rises up and warm air falls down

(b) warm air rises up and cold air falls down

(c) both cold air and warm air rise up

(d) both cold air and warm air fall down



47- Convection currents in the atmosphere are controlled by............

(a) precipitation process
(b) moon's rotation
(c) the thermal energy from the Sun
(d) the light energy from the moon

48- Heat is transferred through the atmosphere by...........

(a) Convection (b) Conduction
(c) Reflection (d) absorption

49- The tool that is used to measure the speed of precipitation is

(a) Anemometer (b) Barometer
(c) Thermometer (d) weather radar

50- .... happens due to the shortage of water in an area for a long period of time

(a) Flooding (b) Snowfall
(c) Drought (d) Sandstorm

51- The increase in the amount of rain for a long period of time may cause........

(a) Flooding (b) Sandstorm
(c) Drought (d) dust storm

52- Drought affects all the following, except

(a) People (b) Plants
(c) Buildings (d) animals

53- Floods may occur as a result of......... And.............

(a) gentle rain - melting of snow
(b) heavy rain - sudden melting of snow
(c) gentle rain - freezing of water
(d) heavy rain - little evaporation of watar





54- During driving a car, if the visibilty range in normal sunny weather is up to 3 km, during a sandstorm the visibilty range on the same road.........

(a) will increase (b) will not change

(c) will be 1 km or less. (d) will be 4 km.

55- Extreme weather conditions include all the following, except.....

(a) Drought (b) Flooding

(c) Sandstorm (d) sunrise

56- The.............is using in determine wind speed

(a) Anemometer (b) barometer

(c) Radar (d) thermometer

57- The ....is the amount of water vapor present in the air

(a) air density (b) atmospheric pressure

(c) humidity (d) temperature

58- The air particles density increases at the ..of the mountain.

(a) Top (b) Bottom

(c) Middle (d) higher

59- The.......is one of the tools that designed to carry measuring tools

(a) weather balloons (b) barometer

(c) rain gauge (d) thermometer

Question 2 — Put (✓) or (✗) To the following statement — Concept 3.1

1)	Drying up of water in the large salt lake in Turkey is due to condensation process.	✗
2)	Transferring of energy in the water cycle causes increasing or decreasing of water level in some lakes	✓
3)	In the water cycle, the step that follows condensation process is runoff	✗



4)	Hottest regions are regions in which the evaporation process is the greatest	✓
5)	Water cycle affects the weather on Earth.	✓
6)	Winds cause ocean currents that transport water to different places on Earth's surface.	✓
7)	The water cycle is the movement of water through different water reservoirs on Earth	✓
8)	The two factors that control the movement of water in the water cycle are gravity force and solar energy	✓
9)	Glaciers move from the top of mountains to the bottom of mountains due to the effect of gravity	✓
10)	The motion of air from one place to another leads to changing of water vapor into water in the air.	✓
11)	Melting and transpiration processes only occur by cooling	×
12)	As a result of low temperature, water returns back into water vapor.	×
13)	When water vapor cools in the sky, it forms clouds.	✓
14)	The heat of the Sun transfers through space to Earth's atmosphere by convection.	×
15)	The cold air is replaced the cold air	(×)
16)	Transpiration from plant leaves decreases in the morning	(×)
17)	In condensation process, water vapor gains energy	(×)
18)	Water cycle is the movement of water between different reservoirs	(✓)
19)	Evaporation occurs as a result of gaining heat energy	(✓)
20)	Small lakes dry as a result of the runoff	(×)

21)	Condensation occurs when a gas is heated and turning to a liquid	(×)
22)	Convection currents in atmosphere help in determining regional climates.	(✓)
23)	When fresh water changes into snow and ice, this means that fresh water gains thermal energy.	×
24)	Rains fall and collect in oceans by the effect of gravity force	✓
25)	The weather in the area near the equator is very cold due to falling of sun rays perpendicular on Earth's surface.	×
26)	When the sun rays fall semi-inclined on Earth's surface, they will distribute on a large area giving low effect of heat.	✓
27)	The temperature is equal at all areas on Earth's surface	×
28)	Rivers and some lakes are from the sources of water that we need to survive	✓
29)	Hot air has higher density (heavier) than that of cold air, so it rises up to the atmosphere	×
30)	Solar energy is the main energy that causes the movement of convection currents in atmosphere and oceans	✓
31)	Unequal heating of Earth between the poles and the equator generates wind	✓
32)	weather condition will not be affected by the absence of wind.	×
33)	Flamingos immigrate to a salt lake in Turkey, but it suddenly dried.	(✓)
34)	The flamingos feed on algae in the fresh water	(×)
35)	Climate changes affect the breeding of flamingos	(✓)
36)	Solar energy is distributed in equal amounts on the earth surface	(×)
37)	Evaporation is the transformation of water from a liquid to a gas	(✓)

38)	The runoff is the flow of water under earth surface after precipitation	(×)
39)	Oceans are the main source of evaporation in water cycle	(×)
40)	Climate changes effect on water cycle	(✓)
41)	The evaporation process occurs by losing energy	(×)
42)	The wind transfers energy between water reservoirs on the earth surface	(✓)
43)	The wind is formed by cold air rises up word then replaced by hot air	(×)
44)	Earth revolving is a reason for wind direction determination	(×)
45)	Heat transfers from hot water to cold water	(✓)
46)	The volume of water in a puddle increases by increasing the runoff	(✓)
47)	Water cycle drives to conserve water percentage on Earth	(✓)
48)	The convection causes water to move through the water cycle in nature	(✓)
49)	Hot air is more dense than cold water.	(×)
50)	The convection currents moves vertically	(✓)
51)	The convection currents moves horizontally	(×)
52)	Warm moist air is denser than cold one	(×)
53)	Dropping water level in lakes as a result evaporation	(✓)
54)	The rain never falls on deserts Concept 3.2	×

55)	The main challenge that faces people in deserts, is the low amount of water	✓
56)	The air becomes more dense at the top of a mountain compared to the bottom of this mountain	✗
57)	Solar energy and wind turbines can be used to operate desert farms	✓
58)	The properties of the atmosphere at the top of a mountain and at its bottom are similar	✗
59)	Reusing water is a useful way to irrigate crops in desert farms	✓
60)	Condensation of water vapor in atmosphere happens due to the increasing of the air temperature	✗
61)	Humidity represents the amount of moisture presents in the air	✓
62)	The temperatures of both water and sand Increase at the same rate when they are exposed to the same amount of heat	✗
63)	Mapping data means representing data about weather conditions on a map	✓
64)	The movement of air cannot be predicted by using weather map	✗
65)	Sometimes meteorologist could not predict the weather due to unexpected quick changes happen in the weather condition	✓
66)	When air is coold its molecules spread away from each others	✗
67)	By increasing the temperature of air, its density decreases	✓
68)	Convection currents in the atmosphere are usually controlled by Earth's rotation	✗
69)	Convection currents are related to the horizontal movement of air	✗
70)	The lighted bulb releases heat which rises the temperature of air around the bulb	✓

71)	The direction of wind movement is affected by the difference of air temperature	✓
72)	Anemometer is used to measure the speed of precipitation	✗
73)	Rain guage and weather radar have the same function	✗
74)	The hand that is placed above a lighted candle feels hot because hot air has high density so it moves up	✗
75)	Heavy rain may cause extreme drought condition	✗
76)	Dust storms have no harmful effects on the plane engines	✗
77)	When rain doesn't fall for a long period of time, soil may get dry and plants may die.	✓
78)	Although flooding is harmful, it also has some benefits	✓
79)	Sandstorms blow up from a dry area such desert	✓
80)	Floods may cause death of people and animals.	✓
81)	Using solar panels is a way of developing farming methods	✓
82)	A rain shadow occurs in the windward side	✗
83)	Atmospheric pressure decreases as we going higher	✓
84)	Weather is an atmosphere condition during long period of time	✗
85)	Atmosphere properties at the top of a mountain differ than its properties at the bottom	✓

Question 3 Complete the following sentences — Concept 3.1

1) Flamingos migrate to the large salt lake in Turkey when the weather becomes (warm), and they feed on (algae). which are found in this lake.

2)	Formation of fog is due to the (condensation) of water vapor on a field in early morning
3)	Water is changed from (liquid) state into (gas) state during evaporation process
4)	The movement of water through different water reservoirs on Earth is called the (Water cycle)
5)	Transpiration is a form of.(evaporation) process, while condensation takes place by the decrease in the (thermal)energy
6)	Water vapor comes out from plant leaves through the (stomata)
7)	When (water vapor) in air hits a cold glass of juice, it will condense
8)	When the water droplets in the clouds become too heavy, it causes(precipitation) process
9)	The moist air contains a large amount of (water vapor)
10)	When a gas or a liquid is heated, its density will (decrease)
11)	The (hot warm) air rises up.
12)	The weather of the regions near equator is more (hot)
13)	The (sun) is considered the main drive the cycling of wind around Earth
14)	The (Cold) air goes down
15)	The tiny water droplets have condensed out of the air forming (Cloud)
16)	Water collects in some water reservoirs such as (oceans),(seas)and living organisms
17)	Heat can transfer through Earth's atmosphere due to the effect of (Convection)currents
18)	The difference in the (temperature) and (densities) in water of oceans and atmosphere occurs due to the unequal heating of land and oceans

19)	Fresh water changes into water vapor when it (gains)thermal energy, while fresh water changes into (ice)when it loses thermal energy
20)	Rain water is collected in oceans by the effect of (gravity)force
21)	The weather of the area far away from the equator is (very cold)because the sun rays fall (very inclined)on Earth's surface at this area
22)	Cold water has more (density)than warm water, so it moves under the warm water
23)	The Sun produces the energy which causes the movement of (convection)currents that produces ocean currents and(winds)
24)	Due to convection currents, hot air moves (above) cold air
25)	The global wind system of Earth consists of (winds) that blow in a constant (direction) over long periods of time
26)	The direction of wind is determined by the amount of (solar radiation) received by Earth and (rotation) of Earth
27)	When warm air contains enough water vapor, it loses this water in the form of (rains)
28)	The water level of a lake decreases as a result of (evaporation)
29)	The most important source of energy in water cycle is (sun)
30)	From the environmental challenge that faces flamingos is (loss of habitat or climate change)
31)	Solar energy may distribute to (hottest) regions and (coolest) Regions
32)	The two basic factors for water cycle are (energy) and (force)
33)	Water state changes in water cycle by (gain) and (loss) energy
34)	The processes that need losing energy of water in water reservoirs are (freezing) and (condensation)

إجمد كده لأ متعيطش!

35)	The direction of wind is determined by two factors (amount of solar radiation)and (rotation of earth)
36)	The cold gases are (more) dense than the warm gases
37)	The(dry)air forms deserts
38)	The regions near the(equator)are very hot
39)	The convection currents move in(Vertcally) direction
40)	When we put a blue jar with hot water on the top of a red jar with cold water, the colors (don't mix (change))
41)	The warm moist air is(less) dense
42)	The condensation process is accompanied with (release or lose) energy
43)	The processes that need gaining energy of water in water reservoirs are (melting) and (evaporation)
44)	The amount of rain that falls on deserts is (less) than that falls on other biomes — Concept 3.2
45)	The amount of water that evaporates is (more) than the amount of rain that falls on deserts.
46)	The scientist who studies the changes of Earth's (atmosphere) is called meteorologist
47)	At the bottom of a mountain, the air density is(higher)than that at its top.
48)	Farmers in desert may use the(solar) energy produced from the Sun to power their farms.
49)	As you climb to the top of a mountain, the air density will (decrease –) while as you move down toward the bottom of it,(increase) the air temperature will

50)	When the hot and humid air meet the cold and dry air, the (hot and humid)air rises.
51)	At night, the sand on the seashore cools off (faster) than the sea water.
52)	At noon, sand gets hot in a (shorter) time than water
53)	The temperatures of both water and sand (increase) in the presence of a source of heat
54)	Sea water is heated up slowly and cools off (slowly)
55)	The thermometer is used to measure (temperature) while the barometer is used to measure (atmospheric pressure)
56)	Gases and liquids expand by (heating) and contract by cooling
57)	When air is heated, it expands as its (molecules) move away from each other.
58)	The horizontal movement of air is called (wind), whereas the vertical movement of air is called (air current)
59)	Extreme hot temperatures for a long period of time, may cause (drought)
60)	Heavy rain for a long period of time, may cause (flooding)
61)	Sandstorms (increase) the chances of car accidents.
62)	Dust storms (decrease) the water quality in irrigation canals
63)	Floods result in formation of (wet) lands.
64)	Strong winds may blow up sand from a (dry)area such as deserts
65)	When air is heated, it (expands , become less dense and move up)
66)	The thermometer is uses in measuring (temperature)

67)	Devices that carry the measurement tools are (satellites) , (airplanes) and (weather balloons)
68)	Using (weather map) is the most effective way in analyzing the collected data
69)	The very tall mountains often have two sides, one is(wet (ward))wind and the other is (dry (down , leeward) of wind
70)	One of the characteristics of desert soil it is a (low) fertility soil
71)	Air pressure at the top of the mountain is (lower)than air pressure at the bottom of the mountain
72)	One of the difficulties that farmers face while farming in the deserts is (Extreme hot and dry weather)

Question 4 Write the scientific term for each of the following — Concept 3.1

38)	The main source of energy that affects the water cycle	the sun
39)	It is the process in which matter changes from gas state to liquid state.	Condensation process
40)	It is the step in which water flows along Earth's surface into the river and then into the ocean or sea	Runoff
41)	They are the places of storing water on Earth	Water reservoirs
42)	A process that plants get rid of exceeds water in water vapour form through spores	Transpiration
43)	The process that occurs when the water droplets which forming clouds become heavier and fall down by gravity.	Precipitation
44)	A liquid turns inti a gas by gaining energy	evaporation
45)	The force which causes moving down of water from higher places to lower places on Earth	Gravity

46)	It is the process which helps in formation of clouds in the sky	Condensation process
47)	The cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to Earth in the form of rain, sleet or snow	Water cycle
48)	It is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down	convection
49)	It is caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas	Wind
50)	It is the main source that is responsible for warming of air and forming wind.	The sun
51)	Large areas of land that are formed due to the effect of dry air.	Deserts
52)	A process that causes entering water to the atmosphere in a form of water vapor	Evaporation
53)	A phenomenon that occurs as a result of descending warm and dry air at the dry side of a coastal mountain range. Concept 3.2	Rain shadow phenomenon
54)	The side of mountain ranges at coastal regions that faces the coast	The wet side
55)	The side of mountain ranges at coastal regions in which the rain shadow phenomenon occurs	The dry side
56)	The scientist who uses a variety of tools and instruments to study and forecast weather	Meteorologist
57)	The device that is used to measure atmospheric pressure	Barometer
58)	The device that is used to measure temperature.	Thermometer



59)	It is the weight of the air above an area	Atmospheric pressure
60)	It is a type of maps that meteorologists use to collect and analyze data about weather.	Weather map
61)	The falling of snow to the Earth's surface, when water droplets in clouds are changed into ice crystals	Snowfall
62)	The vertical movement of air in the atmosphere	Air current
63)	The horizontal movement of air in the atmosphere	Wind
64)	The tool that is used to measure the intensity and speed of precipitation	Wather radar
65)	The tool that is used to measure the amount of rain in a certain area	Rain guage
66)	The force that pulls big and heavy water droplets toward the ground causing precipitation	Gravity force
67)	It is a natural phenomenon in which extreme dry and hot weather affect an area for a long period of time	Drought
68)	It is a natural phenomenon in which the level of water in a river increases until it overflows onto its banks	Flooding
69)	It is a natural phenomenon in which very strong winds blow up dust that reduces the visibility during driving cars	Dust storm
70)	The weight of the air above a location	atmospheric pressure
71)	The amount of water vapor that presents in air	humidity
72)	The science of studying and predicting the weather	meteorology
73)	The scientist who uses different tools for study and predict weather	meteorologist



74)	The amount of force that air effects on the surrounding environment	Atmospheric pressure

Question 5 Give reason for the following **Concept 3.1**

1. Drying up of the large salt lake in Turkey in summer season
   - Due to the increase in the evaporation of the lake water
2. Formation of fog in the early morning.
   - Due to condensation of water vapor that is found in the air
3. Changing of water from one state to another
   - Due to gaining or losing of thermal energy
4. Moving down of glaciers from the top of a mountain to its foot
   - Due to the effect of gravity on glaciers
5. Changing of some amount of water in water bodies into water vapor
   - Due to evaporation process, as a result of gaining of thermal energy.
6. About 10% of water vapor in air comes from plants.
   - Due to transpiration process which happens by plants
7. Formation of clouds in the sky.
   - Due to condensation of water vapor into water droplets that adhere to particles of dust or smoke in the air.
8. Hot air moves upward above cold air
   - Due to the effect of convection, where hot air has less density, so it rises upward, while cold air has more density, so it falls down
9. The weather in the area near the equator is hot.
   - Because the sun rays fall perpendicular on Earth's surface giving high effect of heat.
10. The effect of heat is low in the area at the north and south of the equator
    - Because the sun rays fall semi-inclined on Earth's surface of these areas, so the weather is warm



11. The difference in temperature and densities in water of oceans and atmosphere.

- Because the heat of the Sun causes unequal heating of land and oceans

12. The water cycle is very important for all living organisms on Earth's surface

- Because it provides water for all living organisms and regulates weather on Earth.

13. The regions near the two poles are very cold

- Because the sun rays are distributed on a very large area giving the lowest effect of heat

14. The regions near the equator are very hot

- because the sun rays are concentrated on a small area giving the high effect of heat

15. Dry air forms deserts.

- because the warm air flows away from its place to another one its cools and descends until it reaches the earth's surface again and becomes dry this dry air form desert

16. On adding warm water to cold water without shaking, the warm water stay above cold water without mixing

- Due to the effect of convection, as warm water has less density than cold water, so warm water will stay above cold water.

17. The formation of wind is determined by the amount of solar radiation received by Earth

- Because warm air rises upward when it is heated by solar radiation and it is replaced by cooler air that flows from nearby areas.

18. Ice crystals and water droplets in clouds fall back again to earth

- Because the gravity force pull water down

19. Water percolates down into the ground

- Due to the effect of gravity force on water



20. Living organisms are considered a part of water cycle on earth surface

- Because living organisms is one example of water reservoir

21. Ice crystals and water droplets in clouds fall back again to earth

- Because the gravity force pull water downward

22. Water percolates down into the ground

- Due to the gravity force

23. Deserts get very little rain

- due to extreme hot and dry weather that causes the evaporation more than precipitation

24. The occurrence of evaporation process.

- Because water gains thermal energy

25. The temperature differs around the world

- due to unequal distribution of solar energy on earth



Concept 3.2

26. Desert farming faces many difficulties

- Because the desert's climate is hot and the amount of water is small.

27. The land of the side of a coastal mountain range that is away from the coast is usually dry

- Because the air descends on this side and becomes warm causing dryness of the land

28. Hot air moves up, while cold air moves down.

- Because the hot air has low density, while the cold air has high density.

29. In the summer days at noon, we may not be able to stand barefoot on the sand of a beach but we can swim in the sea water

- Because sand is heated up faster than water

30. Sometimes meteorologists could not predict the weather of next days.

- Due to unexpected quick changes in weather conditions



31. We put thermometer in weather ballon.

- To measure air temperature at different altitudes

32. When air is heated, it expands

- Because the molecules of air move away from each other

33. Convection currents in the atmosphere are considered as vertical movements of air

- Because convection currents occur when hot air rises up and cold air falls down

34. The bigger and heavier water droplets are falling down to the Earth's surface causing precipitation

- Due to gravity force

35. Extreme weather phenomena became more stronger in many places around the world

- Due to global climate change

36. Floods have some benefits

- Because some ecosystems depend on floods such as ecosystems along the Nile

37. Sandstorms have harmful effects on human health

- Because sandstorms harm the human eyes and respiratory system.

38. Flooding is more dangerous if the ground is frozen

- Because the ground cannot absorb the water

39. It is easy to see a sandstorm from a long distance.

- Because it extends for several kilometers long and its height may reaches hundreds of meters.

40. When hot air loses its heat, it descends.

- When hot air loss heat it becomes more dense so it descends due to gravity



41. Snow forms on the top of the mountain while the water remain liquid at the bottom

- Because in the top of mountains temperature become low so water change into ice while in bottom temperature become high

42. Meteorologists represent weather forecasts as probability ratios

- Because there are some small unexpected and quick changes in wind , air temperature affects the weather so they cannot predict it accurately

Question 6 — What happen when

Concept 1.3

1. The snow when sunlight falls on it

- The snow will melt and change into liquid water

2. Place a blue jar with hot water on the top of a red jar with cold water (relative to mixing colors)

- The color doesn't mix together

3. The difference of air particles temperature (relative to convection currents)

- the warm air rises up from equator to poles and cold air descends down from poles to equator

4. Water of seas and oceans gains large amount of thermal energy.

- Water of seas and oceans changes into water vapor in air.

5. You cover some leaves in a plant with a plastic bag, then put this plant in the direct sunlight for awhile

- Water droplets will be formed inside the bag.

6. Very dry wind blows over an area of the land

- A group of deserts will be formed around the earth

7. Very dry wind blows over an area of the land.

- A group of deserts will be formed around the earth

8. The difference of air particles temperature (relative to movement)

- its leads to warm air move upward and cold air moves downward



9. Moist air touches a cold bottle of water

- Water vapor which is found in air condenses on the surface of the bottle.

10. Water vapor in air condenses in the sky

- Clouds are formed in the sky

11. The water droplets in the clouds become very heavy

- Water droplets fall in the form of rain.

12. The weather if the sun rays fall very inclined on an area

- The weather of this area becomes very cold.

13. The density of air if the cold air is warmed by the effect of solar energy

- The density of the air will decrease (becomes low).

14. The air temperature if there is no wind on Earth

- The regions around the equator become extremely hot and the poles will completely freeze

15. The movement of air when solar radiation heats up the air in an area

- The air will move upward in this area.

16. Water gains high heat energy.

- it will change into water vapor

17. The evaporation of water in the lake increases

- The lake will dry up and flamingo migrate



18. A lake is subjected to very hot temperature

- The like will dry up and flamingo migrate

19. The evaporation of water in the lake increases.

- The lake will dry up and flamingo migrate

20. The surface water exposes to high temperature from the sun

- leads to increase evaporation of water

21. Water runs off the land

- Water will flow along earth's surface into river then into oceans or seas and then it will collect in river or ocean

22. Water runs off the land

- Water will flow along earth's surface into river then into oceans or seas and then it will collect in river or ocean

Concept 3.2

23. The atmospheric pressure, as we move up toward the top of a mountain.

- The atmospheric pressure will decrease.

24. The air density, as we move down toward the bottom of a mountain

- The air density will increase.

25. The temperature of water inside a beaker if we put it under a lighted lamp for 15 minutes

- The temperature of water will increase.

26. The temperature of hot sand in aa desert at night

- The temperature of a desert sand will decrease

27. The water movements when boiling it in a pot

- Hot water moves up and cold water falls down

28. The buildings when they are subjected to strong floods

- They may be damaged by moving or breaking

29. The solar panels when dust accumulates on them.

- Solar panels stop generating energy

30. Rising higher in relation to atmospheric pressure and temperature

- Both pressure and temperature will decrease (become low)

31. The air cools and water vapor condenses at the sky

- The water droplets change into ice crystals and fall on earth in the form of snow



32. The amount of water vapor in the air increases

- The humidity will increase

Question 7 correct underline word

8)	In the water cycle, the step that follows condensation process is runoff	Collection
9)	Falling of hail in coolest regions is an example of evaporation process.	Precipitation
10)	The amount of thermal energy that reaches the water bodies on Earth's surface affects the rate of condensation process in the water cycle	Evaporation
11)	Electricity is the force which causes moving down of water from higher places to lower places on Earth.	Gravity
12)	Dry air causes the formation of large areas of rainforests around Earth's surface	Deserts
13)	When the air is heated, it moves forward.	Upward
14)	Wind is formed due to electric generators that reaches Earth from the Sun.	Solar radiation

Question 8 Vairous questions

1. Rearrange the following steps that show how does wind form

(1) The cold air replaces the hot air

(2) The air is heated by the effect of Sun's radiation.

(3) The hot air rises up

2. (explain) the importance of convection currents

- transfer heat through the earth's atmosphere

3. How does the amount of solar energy effects the transpiration rate of plant leaves?

- because when the amount of solar energy increases the transportation process increases



4. What is the relation between the convection and the condensation?
   - Convection causes the rising of temperature of air that contains water vapor
   - Condensation happens when this rising air loses its heat and the cold-water vapor changes into water droplets and finally this leads to formation of clouds.
5. Answer the following questions
   c) Explain the role of gravity in water cycle in the nature.
   - Gravity pulls water downward it cases falling of ice crystals and flowing of liquid water

   d) Explain the role of the sun in water cycle in the nature
   - sunlight come from the sun includes thermal energy that case change of the state of water such as (melting, evaporation, condensation and freezing
6. Mention the steps of studying weather
   (4) Collecting data
   (5) Analyzing data
   (6) Putting it all together
7. Mention the importance of weather radar?
   - It detects the intensity and speed of precipitation and tracks thunderstorms and hurricanes
8. The importance of weather balloons?
   - Carry measuring instruments high into the atmosphere to measure condition of weather from different altitudes





حمل الآن

مجانا وحصريا

المراجعة رقم (5)

اختبار شهر فبراير





Concept (3-1)-Energy transfer through water cycle

-How do water, wind and sunlight drive energy transfer in the water cycle?

-The sun is the most important source that drives the water cycle as it provides the energy needed to:

-Melting ice and converts it into liquid water.

-Evaporating liquid water to form water vapor.

-Generating wind movement.

-Energy transfer in the water cycle leads to increasing or decreasing the levels of water in some lakes.

For example, there is a large lake in Turkey:

-This lake hosts huge number of Flamingos when the weather is warm.

-The flamingos feed on algae that found in the shallow water of this lake.

-During summer months, the energy transfer in the water cycle leads to drought of this lake G.R. due to increase in the evaporation rate of the lake water.

Energy transfer in water cycle

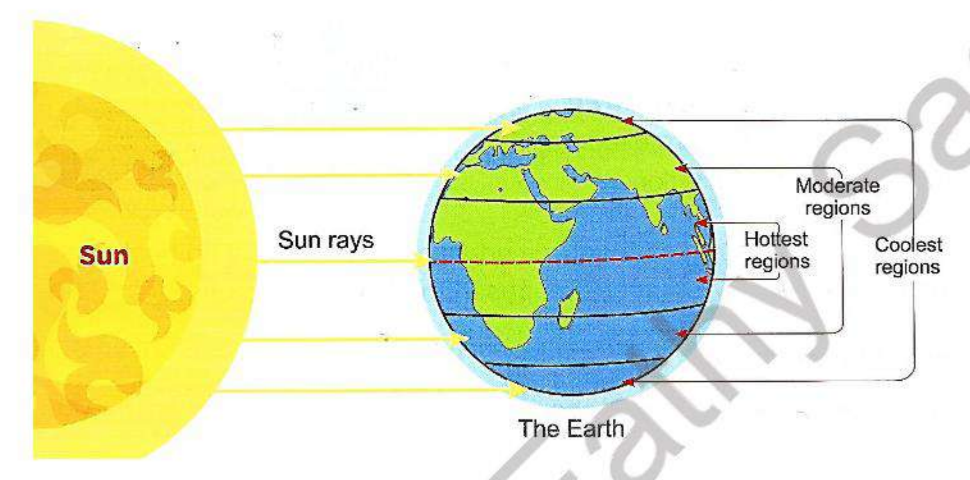
-Evaporation process:	It is the process in which matter changes from liquid state to gas state.	Ex. Shallow lakes dry up when the water evaporates from them.
-Condensation process:	It is the process in which matter changes from gas state to liquid state.	Ex. Formation of fogs over fields in the early morning
Precipitation process:	It is the process in which water falls on Earth in the form of rain, sleet, snow or hail.	Ex. Snow falls in cold days
Runoff:	It is the step in which water flows along the Earth's surface into the river and then into the ocean or sea.	Ex. Water in a river travels down a mountainside.
Collection:	It is the step in which rainwater falling on the Earth's surface is collected in different water bodies.	Ex. Water is collected in oceans, seas and rivers.

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Distribution of solar energy:

-Evaporation rate of in the water cycle differs from one region to another on Earth's surface G.R. due to the difference in amount of solar energy that reaches the earth from one region to another.

Hottest Regions	Moderate Regions	Coolest Regions
In which evaporation process is the greatest	In which the evaporation process is moderate	In which evaporation process is smallest.



How solar energy and gravity drive water cycle?

Water cycle: It is the continuous movement of water among different water reservoirs.

Water reservoirs: They are storage locations of water on Earth. e.g. oceans, lakes, seas, rivers, glaciers, soil, rocks, living organisms and atmosphere.

-The main processes and steps that move water among these reservoirs are evaporation, condensation, precipitation, runoff and collection.

-All these processes and steps depend on energy and force.


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The factors that affect the movement of water in water cycle

1-Solar Energy:

The sunlight that comes from sun includes thermal energy that causes the change in state of water through the water cycle:

Process	Thermal Energy	State changes
Melting	Gains	Solid to liquid
Evaporation	Gains	Liquid to gas
Condensation	Loses	Gas to liquid
Freezing	Loses	Liquid to solid

2-Gravity force:

Water starts to move or change its way of movement when a force affects it.

-Falling of melting ice and water droplets found in clouds back to the earth's surface, leads to flowing of liquid water downhill into streams and rivers.
-Flowing of water in solid state in glaciers from higher areas to lower areas.
-Leakage of liquid water down into the ground then to ground reservoirs.
-Flowing of groundwater from higher altitude areas to lower altitude areas.

Energy and Water cycle

-When water changes from one state to another in water cycle, it gains or loses energy.
-Gaining or losing energy affecting water particles in air.
-The movement of air from one place to another with difference in temperature leads to evaporation and condensation processes.

Transfer of Energy

-Condensation and freezing occurs when water particles lose thermal energy.
-Melting, evaporation and transpiration occurs when water particles gain thermal energy.

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1-Evaporation:

The sun heats water in water bodies this leads to evaporation of water and changing it into water vapor due to gaining thermal energy.



2-Transpiration:

It is a type of evaporation that takes place through the stomata on the plant's leaves.

-About 10% of water vapor in the air comes from transpiration of plants.
-When the amount of the energy comes from the sun increases, the transpiration rate in plant's leaves increase.

3-Condensation:

When water saturated with water vapor cools due to decreasing of air temperature, the water vapor changing into liquid water forming clouds.



-Clouds are formed G.R due to condensation of water vapor into water droplets attach to particles of dust and smoke so when large numbers of these water droplets joint together they form clouds.
-Water is important for humans, animals and plants G.R. because all living organisms need water to survive.
-The total amount of water on Earth does not change even if water changes from one state to another G.R. because it can be replaced through the water cycle.

Convection: It is the process in which heat transfers in liquids and gases, where hot molecules rise upward, while colder molecules fall down.

-Radiation: It is the heat transfer from sun to the Earth's atmosphere.
-Convection: It is the heat transfer through atmosphere in the form of convection current.

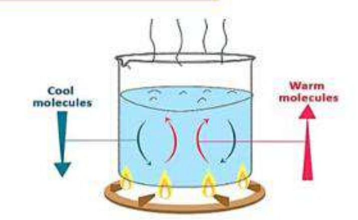
-There is difference in temperature and densities in water of oceans and atmosphere G.R. due to the unequal distribution of heating of land and oceans.



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Convection in liquids and Gases

-When a liquid or gas is heated, it expands and becomes less dense moving upwards.
-While cold liquid or water is denser to it move downwards replacing the warm liquid or water.



Convection currents: It is the movement of warm liquid or gas upward and cold liquid or gas downward forming a cycle.

-Convection current happens G.R. due to the movement of warm air upward and cold air downward.

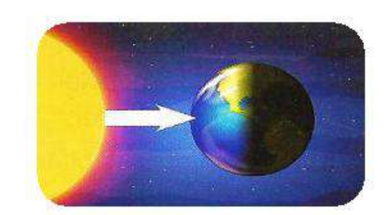
The force of gravity helps rising and falling of different densities of liquids and gases leading to rotation of convection current forming wind and ocean currents.

The relation between convection and condensation:
Convection causes the rising of temperature of air that contains water vapor and when this rising air loses its heat and cold water vapor changes into water droplets condensation happens forming clouds.
So, condensation happens as a result of convection.

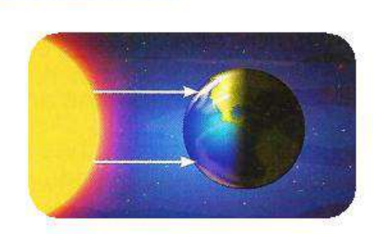
The heating of Earth

-Getting closer to the equator or moving away from it affects the weather G.R. because weather of the areas near the equator is hot and humid while the weather of areas as we move away to north and south of equator depends on the temperature and precipitation as it could be warm and humid or freezing cold.

1-When the sun rays fall perpendicular on Earth surface:
The sun rays are concentrated on a small area giving high effect of heat so the weather is hot.



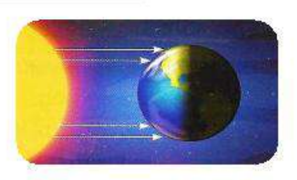
2-When the sun rays fall semi-inclined (semi-slanted) on Earth's surface:
The sun rays are distributed on a large area giving low effect of heat so the weather is warm.



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3-When the sun rays fall very inclined (very-slanted) on Earth's surface:

The sun rays are distributed on a very large area giving the lowest effect of heat, so the weather is very cold.



P.O.C	Equator (Hottest)	Moderate	Poles (Coolest)
Evaporation	Greatest	Moderate	Smallest
Temperature	High	Moderate	Low
Air	Humid air	Less humid	No humidity
Sunrays	Perpendicular on Earth surface concentrated in small area	Semi-inclined on earth surface and distributed on large area	Very-inclined on earth surface and distributed on very large area
Description	Hot area	Warm area	Cold

-The areas near equator are very hot regions G.R. Due to that sunrays fall perpendicular on Earth's surface in the area of equator and concentrated on a small area giving high effect of heat and weather become hot.

-When going away from equator to the north or south the temperature gradually decreases G.R. because sunrays fall semi-inclined on Earth's surface in the area at north and south of equator and distributed on large area giving low effect of heat and the weather becomes warm.

-The weather at poles is very cold G.R. because sun rays fall very inclined on Earth's surface in the area far away from the equator and distributed on very large area giving lowest effect of heat and weather becomes very cold.

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Convection currents and water cycle

-Convection currents and gravity force affect the movement of water through water cycle G.R. convection current cause movement of warm water or gas upward and cold liquid or gas downward with the help of gravity force.

Earth's Wind

Global wind system: It is the system that consists of wind blow in a constant direction over long periods of time.

-Global wind affects the weather and climate of an area G.R. because wind is the main factor in determining weather and climate so change in wind cause change in weather and climate of an area.

Factors determining wind direction:

1-Amount of solar radiation that reach the Earth.

2-Rotation of the Earth.

What would happen if there is no wind on Earth?

-The region around the equator become very hot and the poles will completely freeze.

-Some ecosystems will change.

-Some ecosystems will disappear completely.

Formation of wind:

If the warm air contains enough amount of water vapor during its rising, the water vapor condenses, so the air loses this water in the form of rain.

↓

At the same time, cooler air masses flow from nearby areas to replace the rising warm air.

↓

When the warm air flows away from its place to another one, it cools and descends.

↓

By the time, it reaches the Earth's surface again and it becomes dry.

↓

This dry air forms a group of dry deserts around the Earth.

↓

Then, the air flows back again to the same place.

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Concept (3-2)-Heat and Weather Changes

-What are the causes that leads to weather changes?

-Density of cold and dry air is more than hot and humid air.
-Temperature of the air, when a part of air is heated it becomes hot and humid.
-Hot humid air rises up and cold dry air falls down.
-When hot humid air rises up it loses energy and condenses forming clouds.

-How meteorologists predict what the weather will be?

Meteorologists depends on some instruments to collect data and study changes of weather.

Farming the desert

Properties of deserts	
Rainfalls	Desert receives the least amount of rain compared to all other biomes
Weather	Extreme hot and dry weather.

-Farmers face a challenge in farming deserts G.R. because the extreme hot and dry weather that causes evaporation of more water than that falls by precipitation.

-Farmers use new ways to make the soil of dry desert fertile and fruitful G.R. because population growth cause people to live in desert.

Improving the soil of desert

Soil	They improve soil quality.
Water	They use new ways to irrigate crops e.g. reusing water.
Crops	They plant crops that are able to grow in the hot climate and low fertility soil.
Energy	They use wind and sun to power their farms in desert with wind turbines and solar energy.

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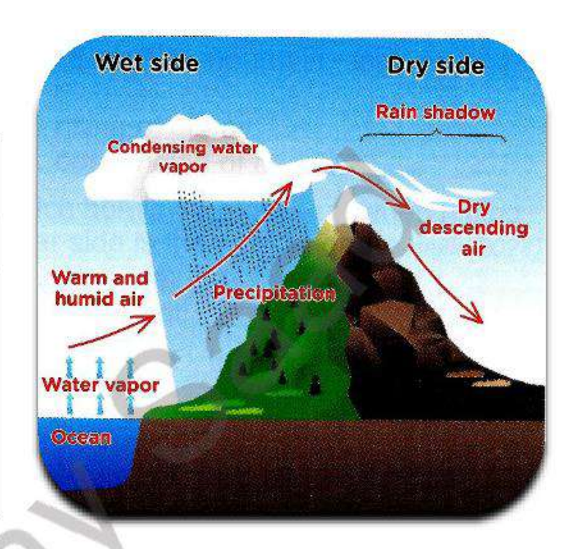
Weather Changes

Mountain Effects:

-Mountain ranges at coastal regions have two sides:

1-A wet side: that face coast.

2-A dry side: that is away from the coast.



Rain Shadow Phenomenon	
At the wet side	At the dry side
-Warm and humid air rises and cools. -Water vapor condenses so the precipitation occurs.	-Cold air descends and becomes warm. -The warm air dries the land of this side

Changes in the atmosphere

Properties	Bottom of mountain	Top of the mountain
Atmospheric pressure	High	Low
Air temperature	High	Low
Air density	High	Low

Meteorology: The science of predicting weather

Meteorology: It is the science of studying and predicting the weather.

Meteorologist: The scientist who uses a variety of tools and instruments to study and forecast weather.

Steps of weather prediction:



1-Collecting data

2-Analyzing data

3- Putting it all together.



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1-Collecting data

Instruments for prediction of weather conditions	
Instrument	**Function**
Thermometer	Measure temperature.
Barometer	Measure atmospheric pressure
Anemometer	Measure wind speed
Weather radar	Detect the intensity and speed of precipitation and tracks thunderstorms and hurricanes
Rain Gauge	Measure the amount of rain in a certain area.

Atmospheric pressure: It is the weight of the air above a certain area **or** it is the amount of force that air exerts on its surroundings.

-Meteorologists use some tools like satellites, airplanes and weather balloons G.R. to carry measuring instruments high into the atmosphere to measure conditions of weather from different altitudes.

-There are also satellites and weather stations that have devices designed to transmit data from satellite or station to meteorologists.

Humidity: It is the measure of how much water vapor is present in the air.

2-Analyzing the data

-Meteorologists use **weather maps** to collect data from different places and over short periods of time, so that they can analyze it.

-Mapping data like air temperature, atmospheric pressure and humidity G.R. because it allows meteorologists to see important weather conditions such as air movement and communicate information to other meteorologists and public.



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3-Putting it all together

-Meteorologists need to observe some other factors that affect atmosphere such as landforms.
-Meteorologists use complex computer models G.R. to predict how these different factors will interact.
-Weather forecasting may be uncertain for next days or weeks. G.R. Because:

-Some unexpected changes in wind, air temperature or moisture in air can affect next weeks' weather.
-Sometimes unexpected and quickly changes happen in the weather conditions so meteorologists cannot predict the weather.

The unequal heating of earth:

-There is a change of air temperature above land and water areas on the Earth's surface G.R. because the effect of thermal energy of the sun on land (sand) differs from that on water as sand is heated up and cooled off faster than water.
-Hot air move up while cold air move down G.R.

Because when air is heated, it expands, its molecules spread out away from each other and becomes less dense so it moves upward, while when air is cooled, it contracts, its molecules comes close to each other and becomes denser and it moves down.
-Movement of air depends on its temperature G.R. Because warm air rises up while cold air flows down and replaces the warm air.

Air current	It is the vertical movement of air up and down.
Wind	It is the horizontal movement of air left and right.

-The differences of temperature of areas that are close to each other on earth affect speed of air current, speed of wind and direction of wind movement.

How precipitation occurs:

1-When small water droplets are formed in the clouds, the air hold them up.
2-As water vapor continues to condense, the droplets become bigger and heavier.
3-The gravity pulls these big and heavy water droplets toward the ground so precipitation occurs.



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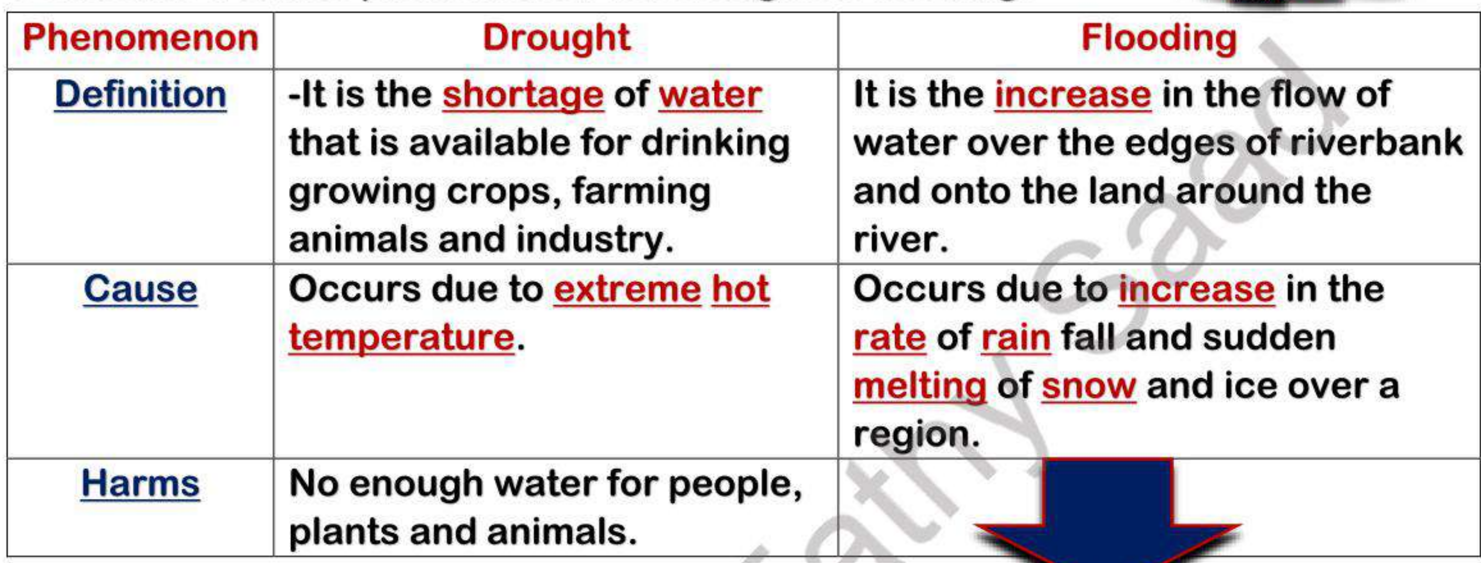
Floods and Sand Storm

Too much or Too little precipitation causes:

1-Damaging of buildings and agricultural systems.

2-Injuries and death.

3-Extreme weather phenomenon i.e. drought or flooding.



Phenomenon	Drought	Flooding
Definition	-It is the shortage of water that is available for drinking growing crops, farming animals and industry.	It is the increase in the flow of water over the edges of riverbank and onto the land around the river.
Cause	Occurs due to extreme hot temperature.	Occurs due to increase in the rate of rain fall and sudden melting of snow and ice over a region.
Harms	No enough water for people, plants and animals.	

Harms of floods	Advantages of floods
-Damaging of buildings. -Death of people and animals. -harming of economy.	-Some ecosystems depend on periodic floods such as ecosystems along the Nile.

-Flood is more danger if the land around the flood is frozen G.R. because frozen water cannot absorb the water.

Sandstorm (dust storm)	
Occurrence	When very strong wind blows up sand or dust or both of them from dry area.
Harms	-Reduce the visibility during driving cars. -Dust accumulates on solar panels. -Dust fills up irrigation canals affecting quality of water. -Dust damages the plane's engine. -Harms the human eyes and respiratory system

-We can easily see sandstorms G.R. because they are extending for several kilometers long and its height may reach hundreds of meters



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Second Term

February Exam Revision

-Choose the Correct answer from the following:

1-Both of .... and .... processes occur by increasing the absorption of thermal energy.

a-evaporation -transpiration b-evaporation - freezing
c-condensation - transpiration d-condensation - freezing

2-Water changes from a state to another when it gains ...., while water starts to move when a .... is exerted on it.

a-work - force b-force - energy
c-work - energy d-energy - force

3-The next process after condensation of water vapor in the sky as clouds is .... process.

a-evaporation b-precipitation c-collection d-freezing

4-Moderate regions are areas in which the evaporation process is.............

a-the greatest b-the smallest c-moderate d-absent

5-The ...... air causes the formation of many desert areas around the Earth's surface.

a-cold b-moistened c-dry d-dusty

6-Wind is formed when .... rises and replaced by .... that flows from nearby areas.

a-warm air-cold air b-warm water - cold water
c-cold water - warm water d-cold air - warm air.

7-Due to convection, ... air moves upward above ....air.

a-cold - hot b-hot - cold c-cold - warm d-warm - hot

8-When a liquid is heated, it will .... and become less dense and ....

a-expand-heavier b-contract - lighter
c-expand - lighter d-contract - heavier

9-Melting of snow at the two poles, is due to the thermal energy that comes from the ....

a-wind b-moon c-sun d-electricity



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10-Both of .... and .... processes happen due to the decrease of thermal energy.

a-melting - freezing | b-melting - condensation
c-freezing - condensation | d-melting -evaporation

11-About 10% of the water vapor in air comes from transpiration of ....

a-humans b-rocks c-animals d-plants

12-Clouds are formed due to .... process.

a-melting b-collection c-condensation d-freezing

13-Wind helps in transporting water through the water cycle by carrying ....

a-sand grains b-small rocks c-plant leaves d-water vapor

14-In different biomes, the least amount of rain falls on .... biomes.

a-rainforest b-grassland c-savannah d-desert

15-Clouds are formed as a result of .... of water vapor.

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16-Coastal mountain ranges often have two sides which are .... side and .... side.

a-narrow-wide b-wet - dry c-high - low d-dark - light

17-Freshwater stored underground in the form of groundwater by the effect of ....

a-condensation b-electricity c-gravity d-evaporation

18-Water vapor in the atmosphere can condense and form ....

a-air b-clouds c-sunlight d-wind

19-The form of evaporation process that takes place from the leaves of plants is called...........

a-transpiration b-collection c-melting d-freezing

20-The barometer is used to measure.................

a-object's mass | b-object's length
c-air temperature | d-atmospheric pressure

21-The climate is ....

a-the amount of rain that an area receives only.
b-the state of the wind at a specific place and time only.
c-the air temperature only.
d-the average weather condition over an extended period of time.

22-The temperature may reach more than 50 degrees in Aswan in the summer, this reflects ....

a-runoff b-atmosphere c-rainfall d-climate

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23-The anemometer is used to measure ....

a-adaptation b-rainfall c-evaporation d-wind speed

24-............ is the transformation of water vapor into liquid water droplets in the air.

a-Transpiration b-Evaporation c-Condensation d-Melting

25-The thermometer is used to ....

a-measure the temperature b-know tomorrow's weather

c-predict the time of rainfall d-measure wind speed

26-The evaporation of water from plant leaves is called ....

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27-Among the forms of precipitation ....

a-rain, hail and snow. b-Sun, rain and snow.

c-seas, rivers and oceans d-mountains, valleys and rivers

28-The amount of water vapor in the air is known as ....

a-humidity b-evaporation

c-condensation d-the cloud

29-Oceans help improve the world's temperature through ....

a-heat absorption b-nitrogen gas absorption

c-salt storage d-water storage

30-At the tops of mountains, the atmospheric pressure is ....

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c-equal to the pressure at the foot of mountains d-vanishing

31-Wind is formed when .... rises and replaced by .... that flows from nearby areas.

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32-Floods may occur as a result of .... and ....

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33-Heat transfers from the .... object to the .... object.

a-big - small b-small - big c-hot - cold d-cold - hot

34-The weather of the areas near the equator is ....

a-hot and humid b-hot and snowy

c-warm and humid d-warm and snowy

35-All the following are considered as the main processes in transferring water through water reservoirs, except ....

a-condensation b- collection c-evaporation d-precipitation

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36-At the top of the mountain, the atmospheric pressure is .... and the temperature is .... compared to the bottom of the mountain.

a-lower - lower b-higher - higher
c-lower - higher d-higher - lower

37-Movement of air can change the state of water from .... to .... state by evaporation process.

a-gas - liquid b-liquid - gas c-solid - gas d-solid - liquid

38-Convection is a way of transferring of heat in liquids and gases due to the differences in .... and ....

a-mass - color b-shape - volume
c-temperature - density d-color - temperature

39-Due to convection .... air moves upward above .... air

a-cold - hot b-hot - cold c-cold - warm d-warm - hot

-Put true or false:

1-Sunlight causes the change of water to snow in coolest regions. ( )
2-The Large Salt Lake in Turkey dries up when the weather is cooled. ( )
3-In hottest regions, the rate of evaporation process is the greatest. ( )
4-When rainwater hits the ground, it may flow across the land in the form of evaporation. ( )
5-The force of gravity affects the movement of water in the water cycle. ( )
7-States of water change when water gains or loses energy. ( )
8-In the water cycle, the step that follows condensation process is runoff. ( )
9-Hottest regions are regions in which the evaporation process is the greatest. ( )
10-Falling of hail in coolest regions is an example of evaporation process. ( )
11-Unequal heating of the Earth between the poles and the equator generates wind. ( )

12-Wind is caused by the continuous exchange between warm air and cold air. ( )
13-Due to radiation currents, warm water moves above cold water. ( )
14-Water reservoirs on the Earth include oceans and seas only. ( )
15-Glaciers move from the top of mountains to the bottom of mountains due to the effect of gravity. ( )
16-Water comes out from stomata to the air in the form of water vapor. ( )

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17-As a result of low temperature, water returns back into water vapor. (   )
18-There is no water found in the air around us. (   )
19-When water vapor cools in the sky, it forms clouds. (   )
20-The water cycle is a movement of water through different water reservoirs on the Earth. (   )
21-A meteorologists is a scientist who studies the rocks of Earth. (   )
22-The cold air is heavier than the hot air. (   )
23-Farmers may have to reuse water to deal with the problem of water shortage, especially in desert lands. (   )
24-Meteorologists can be completely sure of future weather conditions. (   )
25-The temperature at the top of a mountain is less than the temperature at the bottom of this mountain. (   )
26-The weight of the air above a certain area is known as the atmospheric pressure. (   )
27-Rain gauge is used to measure the amount of rain. (   )
28-By decreasing the temperature of air, its density decreases. (   )
29-The temperatures of both water and sand increase at different rates when they are exposed to the same amount of heat. (   )
30-Floods have both harms and benefits. (   )
31-The too much precipitation may cause drought. (   )
32-Barometers are used to measure the speed of wind. (   )
33-Cold air rises above hotter air. (   )
34-Heavy rain may cause flooding. (   )
35-When the air is cooled, it rises up. (   )
36-The weather in the area near the equator is very cold due to falling of sun rays perpendicular on Earth's surface. (   )
37-Precipitation occurs after condensation of water vapor in the sky. (   )
38-Transferring of energy in the water cycle causes increasing and decreasing of water level in some lakes. (   )
39-The two factors which control the movement of water in the water cycle are gravity force and solar energy. (   )
40-The direction of wind is determined by the amount of solar radiation received by the Earth. (   )
41-Sandstorms blow up from a dry area such as seas and oceans. (   )
42-The properties of the atmosphere at the top of the mountain and at its bottom are similar. (   )



43-When the sun heats the water in a river, the water changes into gas state. ( )
44-The hand which is put over a lighted candle feels hot because hot air has high density so it moves. up. ( )
45-Glaciers move from the top of mountains to the bottom of mountains due to the effect of gravity. ( )
46-Convection currents in Earth's atmosphere help in determining the regional climate. ( )
47-If the temperature of the sand in a desert is 42°C at noon, its temperature may reach 55°C at night. ( )
48-Sandstorms decrease the visibility during driving cars. ( )

-Complete the following:

1-Water changes from solid state to liquid state when it gains ....
2-the increase in the rate of .... causes the completely drought of the large Salt Lake in Turkey.
3-Evaporation of different water bodies on Earth is affected by the distribution of the .... energy on the Earth's surface.
4- Water of oceans and seas .... thermal energy when it changes into water vapor.
5-Formation of large areas of .... is due to the precipitation of very little rains on these areas.
6-In condensation process, water vapor .... thermal energy and changes again into liquid water.
7-When .... in air hits a cold glass of juice it will condense.
8-The amount of .... energy that reaches the Earth affects the rate of evaporation process in the water cycle.
9-Cold water has more .... than warm water so it moves under the warm water.
11-Dry air causes the formation of large areas of .... around Earth's surface.
14-Heat can transfer through the Earth's atmosphere due to the effect of .... currents.
15-Fresh water changes into water vapor when it .... thermal energy, while fresh water changes into .... when it loses thermal energy.
16-The sun produces the energy which causes the movement of .... currents that produces ocean currents and ....

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17-The movement of the water through different water reservoirs on the Earth is called ....
18-Transpiration is a form of .... process, while condensation takes place by the decrease in the .... energy.
19-Drying up of a shallow pond is summer is an example of .... process.
20-When the water droplets in the clouds become too heavy, it causes .... process.
21-Energy of the sun causes the changing of liquid water into .... by evaporation process.
22-The amount of rain that falls on deserts is .... than that which falls in other biomes.
23- Water vapor comes out from plant leaves through the ....
24-When air is heated, it expands as its molecules move .... each other.
25-Due to convection currents, hot air moves .... cold air.
26-When the hot and humid air meet the cold and dry air, the .... air rises.
27-Cold water has more .... than warm water, so it moves under the warm water.
28-The amount of water that evaporates is .... than the amount of rain that falls on deserts.

-Write the scientific term of each of the following:

1-A step after precipitation in which water of rain flows across the land into the river. (................................)
2-A structure found on plant leaves responsible for losing water vapor during transpiration process. (................................)
3-It is the movement of water amount the various water reservoirs on the Earth. (................................)
4-The state of water that is produced when an amount of liquid water gains a big amount of thermal energy. (................................)
5-It is the process in which water changes from gas state to liquid state. (................................)
6-It is the step in which rainwater falling on the Earth's surface is collected in different water bodies. (................................)
7-It is formed from millions of tiny water droplets which are condensed from water vapor in the sky. (................................)
8-It is the process in which water falls on Earth in the form of rain, sleet, snow or hail. (................................)



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9-It is the process in which matter change from liquid to gas state. (..............................)
10-The force which causes moving down of water from higher place to a lower place on the Earth. (..............................)
11-Large areas of land which are formed due to the effect of dry air. (..............................)
12-It is the main source which is responsible for warming air and forming wind. (..............................)
13-It is the caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas. (..............................)
14-It is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down. (..............................)
15-It is the method by which heat of the sun transfers from the space to Earth's atmosphere. (..............................)
16-They are the places of storing water on the Earth. (..............................)
17-A force that the atmospheric air exerts on a certain area of the Earth's surface. (..............................)
18-It is the measure of how much water vapor is present in the air. (..............................)
19-A type of balloon that contains measuring instruments and that is sent into the air to find out information about weather. (..............................)
20-The science that studies the weather conditions. (..............................)
21-It is the weight of air above an area. (..............................)
22-They are the places of storing water on the Earth. (..............................)
23-A scientist who studies the Earth's atmosphere and forecasts the weather. (..............................)
24-A phenomenon in which the condensed water vapor falls on the Earth's surface in the form of rain, snow, sleet or hail. (..............................)
25-It is a natural phenomenon that occurs when the level of water in a river increases until it overflows its banks. (..............................)
26-It is the process which helps in formation of clouds in the sky. (..............................)
27-A side of mountain ranges at coastal regions that faces the coast. (..............................)

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28-They cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to the Earth in the form of rain, sleet or snow. (..............................)

-Give a reason for the following:

1-Drying up of a shallow lake in summer season.

....

....

....

2-In a sunny day, a part of ice found on the top of a mountain will change into liquid water.

....

....

....

3-The weather in the area far away from the equator is very cold.

....

....

....

4-When cold air is warmed by the solar energy, it raises upward.

....

....

....

5-hot air moves upward above cold air.

....

....

....

6-On adding warm water to cold water without shaking, the warm water stay above cold water without mixing.

....

....

....

7-The formation of wind is determined by the amount of solar radiation received by Earth.

....

....

....

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8-Formation of fog in the early morning.

....
....
....

9-Changing of water from one state to another.

....
....
....

10-Moving down of glaciers from the top of a mountain to its foot.

....
....
....

11-A bout 10% of water vapor in air comes from plant.

....
....
....

12-Formation of clouds in the sky.

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....
....

14-The weather in the area near the equator is hot.

....
....
....

15-The effect of heat is low in the area at the north and south of the equator.

....
....
....

16-Changing of some amount of water in water bodies into water vapor.

....
....
....

17-Desert farming faces many difficulties.

....
....
....

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18-Sometimes people prefer to live in desert land instead of cities.

....
....
....

19-At noon, we may not be able to stand barefoot on the sand of a beach in summer, but we can swim in the sea water.

....
....
....

20-When air is heated, it expands.

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....
....

21-Extreme weather became stronger in many places around the world.

....
....
....

22-Floods have some benefits.

....
....
....

23-Sandstorms have harmful effects on human health.

....
....
....

-What happens if:

1-Water in a lake is exposed to solar radiation for a long period of time.

....
....
....

2-Water vapor in the sky loses a big amount of thermal energy.

....
....
....

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3-The temperature of air increases in an area.

....
....
....

4-You cover some leaves in a plant with a plastic bag then leave the plant in the direct sunlight for a while.

....
....
....

5-There is no wind on Earth.

....
....
....

6- Water of seas and oceans gains a big amount of thermal energy.

....
....
....

7-Moist air touches a cold bottle of water.

....
....
....

8-Water vapor in air condenses in the sky.

....
....
....

9-The water droplets in the clouds become very heavy.

....
....
....

What happens to:

1-The level of water in a lake when the rate of evaporation increases.

....
....
....

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2-The snow when sunlight falls on it.

....
....
....

3-The weather if the sun rays fall very inclined on an area.

....
....
....

4-The density of air if the cold air is warmed by the effect of solar energy.

....
....
....

5-The movement of air when solar radiation heats up the air in an area.

....
....
....

6-The atmospheric pressure, as we move up toward the top of a mountain.

....
....
....

7-Air density, as we move down toward the bottom of a mountain.

....
....
....

8-The temperature of water inside a beaker if we put it under a lighted lamp for few minutes.

....
....
....

9-The temperature of desert sand at night.

....
....
....

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10-We boil water in a pot on the stove. (concerning the movement of hot water and cold water)

....

....

....

11-Buildings when they are subjected to strong floods.

....

....

....

12-Solar panels when dust accumulates on them.

....

....

....

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Second Term

February Exam Revision

-Choose the Correct answer from the following:

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a-evaporation -transpiration   b-evaporation - freezing
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2-Water changes from a state to another when it gains ...., while water starts to move when a .... is exerted on it.

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3-The next process after condensation of water vapor in the sky as clouds is .... process.

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-Put true or false:

1-Sunlight causes the change of water to snow in coolest regions. (X)

2-The Large Salt Lake in Turkey dries up when the weather is cooled. (X)

3-In hottest regions, the rate of evaporation process is the greatest. (√)

4-When rainwater hits the ground, it may flow across the land in the form of evaporation. (X)

5-The force of gravity affects the movement of water in the water cycle. (√)

7-States of water change when water gains or loses energy. (√)

8-In the water cycle, the step that follows condensation process is runoff. (X)

9-Hottest regions are regions in which the evaporation process is the greatest. (√)

10-Falling of hail in coolest regions is an example of evaporation process. (X)

11-Unequal heating of the Earth between the poles and the equator generates wind. (√)

12-Wind is caused by the continuous exchange between warm air and cold air. (√)

13-Due to radiation currents, warm water moves above cold water. (X)

14-Water reservoirs on the Earth include oceans and seas only. (X)

15-Glaciers move from the top of mountains to the bottom of mountains due to the effect of gravity. (√)

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16-Water comes out from stomata to the air in the form of water vapor. (√)
17-As a result of low temperature, water returns back into water vapor. (X)
18-There is no water found in the air around us. (X)
19-When water vapor cools in the sky, it forms clouds. (√)
20-The water cycle is a movement of water through different water reservoirs on the Earth. (√)
21-A meteorologists is a scientist who studies the rocks of Earth. (X)
22-The cold air is heavier than the hot air. (√)
23-Farmers may have to reuse water to deal with the problem of water shortage, especially in desert lands. (√)
24-Meteorologists can be completely sure of future weather conditions. (X)
25-The temperature at the top of a mountain is less than the temperature at the bottom of this mountain. (√)
26-The weight of the air above a certain area is known as the atmospheric pressure. (√)
27-Rain gauge is used to measure the amount of rain. (√)
28-By decreasing the temperature of air, its density decreases. (√)
29-The temperatures of both water and sand increase at different rates when they are exposed to the same amount of heat. (√)
30-Floods have both harms and benefits. (√)
31-The too much precipitation may cause drought. (X)
32-Barometers are used to measure the speed of wind. (X)
33-Cold air rises above hotter air. (X)
34-Heavy rain may cause flooding. (√)
35-When the air is cooled, it rises up. (X)
36-The weather in the area near the equator is very cold due to falling of sunrays perpendicular on Earth's surface. (X)
37-Precipitation occurs after condensation of water vapor in the sky. (√)
38-Transferring of energy in the water cycle causes increasing and decreasing of water level in some lakes. (√)
39-The two factors which control the movement of water in the water cycle are gravity force and solar energy. (√)
40-The direction of wind is determined by the amount of solar radiation received by the Earth. (√)
41-Sandstorms blow up from a dry area such as seas and oceans. (X)

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42-The properties of the atmosphere at the top of the mountain and at its bottom are **similar**. (X)

43-When the sun heats the water in a river, the water changes into gas state. (√)

44-The hand which is put over a lighted candle feels hot because hot air has **high density** so it moves up. (X)

45-Glaciers move from the top of mountains to the bottom of mountains due to the effect of gravity. (√)

46-Convection currents in Earth's atmosphere help in determining the regional climate. (√)

47-If the temperature of the sand in a desert is 42° C at noon, its temperature may reach **55° C** at night. (X)

48-Sandstorms decrease the visibility during driving cars. (√)

-Complete the following:

1-Water changes from solid state to liquid state when it gains thermal energy

2-the increase in the rate of evaporation causes the completely drought of the large Salt Lake in Turkey.

3-Evaporation of different water bodies on Earth is affected by the distribution of the solar energy on the Earth's surface.

4- Water of oceans and seas gains thermal energy when it changes into water vapor.

5-Formation of large areas of deserts is due to the precipitation of very little rains on these areas.

6-In condensation process, water vapor loses thermal energy and changes again into liquid water.

7-When water vapor in air hits a cold glass of juice it will condense.

8-The amount of solar energy that reaches the Earth affects the rate of evaporation process in the water cycle.

9-Cold water has more density than warm water so it moves under the warm water.

10-Dry air causes the formation of large areas of deserts around Earth's surface.

11-Heat can transfer through the Earth's atmosphere due to the effect of convection currents.



12-Fresh water changes into water vapor when it gains thermal energy, while fresh water changes into solid (ice) when it loses thermal energy.
13-The sun produces the energy which causes the movement of convection currents that produces ocean currents and wind
14-The movement of the water through different water reservoirs on the Earth is called water cycle.
15-Transpiration is a form of evaporation process, while condensation takes place by the decrease in the thermal energy.
16-Drying up of a shallow pond is summer is an example of evaporation process.
17-When the water droplets in the clouds become too heavy, it causes precipitation process.
18-Energy of the sun causes the changing of liquid water into water vapor by evaporation process.
19-The amount of rain that falls on deserts is less than that which falls in other biomes.
20- Water vapor comes out from plant leaves through the transpiration
21-When air is heated, it expands as its molecules move away from each other.
22-Due to convection currents, hot air moves above cold air.
23-When the hot and humid air meet the cold and dry air, the hot air rises.
24-Cold water has more density than warm water, so it moves under the warm water.
25-The amount of water that evaporates is more than the amount of rain that falls on deserts.

-Write the scientific term of each of the following:

1-A step after precipitation in which water of rain flows across the land into the river. (Run off)
2-A structure found on plant leaves responsible for losing water vapor during transpiration process. (Stomata)
3-It is the movement of water amount the various water reservoirs on the Earth. (Water cycle)
4-The state of water that is produced when an amount of liquid water gains a big amount of thermal energy. (Water vapor)
5-It is the process in which water changes from gas state to liquid state. (condensation)

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6-It is the step in which rainwater falling on the Earth's surface is collected in different water bodies. (collection)
7-It is formed from millions of tiny water droplets which are condensed from water vapor in the sky. (clouds)
8-It is the process in which water falls on Earth in the form of rain, sleet, snow or hail. (precipitation)
9-It is the process in which matter change from liquid to gas state. (evaporation)
10-The force which causes moving down of water from higher place to a lower place on the Earth. (gravity)
11-Large areas of land which are formed due to the effect of dry air. (deserts)
12-It is the main source which is responsible for warming air and forming wind. (The sun)
13-It is the caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas. (wind)
14-It is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down. (Convection)
15-It is the method by which heat of the sun transfers from the space to Earth's atmosphere. (Radiation)
16-They are the places of storing water on the Earth. (water reservoirs)
17-A force that the atmospheric air exerts on a certain area of the Earth's surface. (atmospheric pressure)
18-It is the measure of how much water vapor is present in the air. (Humidity)
19-A type of balloon that contains measuring instruments and that is sent into the air to find out information about weather. (Weather balloon)
20-The science that studies the weather conditions. (meteorology)
21-It is the weight of air above an area. (atmospheric pressure)
22-They are the places of storing water on the Earth. (water reservoirs)
23-A scientist who studies the Earth's atmosphere and forecasts the weather. (meteorologist)
24-A phenomenon in which the condensed water vapor falls on the Earth's surface in the form of rain, snow, sleet or hail. (precipitation)
25-It is a natural phenomenon that occurs when the level of water in a river increases until it overflows its banks. (Flooding)
26-It is the process which helps in formation of clouds in the sky. (condensation)

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27-A side of mountain ranges at coastal regions that faces the coast. (Wet side)
28-They cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to the Earth in the form of rain, sleet or snow. (water cycle)

-Give a reason for the following:

1-Drying up of a shallow lake in summer season.
Due to the increase in the evaporation of the lake water.
2-In a sunny day, a part of ice found on the top of a mountain will change into liquid water.
Because ice gains thermal energy, so it melts and changes into liquid water.
3-The weather in the area far away from the equator is very cold.
Because the sun rays fall very inclined on Earth's surface in this area, distributed on very large area and giving the lowest effect of heat.
4-When cold air is warmed by the solar energy, it raises upward.
Due to decrease in the density of air when it is warmed as a result of convection.
5-Hot air moves upward above cold air.
Due to the effect convection, where hot air has less density, so it rises upward, while cold air has more density so it falls down.
6-On adding warm water to cold water without shaking, the warm water stays above cold water without mixing.
Due to the effect of convection, as warm water has less density than cold water, so warm water will stay above cold water.
7-The formation of wind is determined by the amount of solar radiation received by Earth.
Because warm air rises upward when it is heated by solar radiation and it is replaced by cooler air that flows from nearby areas.
8-Formation of fog in the early morning.
Due to condensation of water vapor that is found in the air.
9-Changing of water from one state to another.
Due to gaining or losing of thermal energy.
10-Moving down of glaciers from the top of a mountain to its foot.
Due to the effect of gravity on glaciers.
11-A bout 10% of water vapor in air comes from plant.
Due to transpiration process which happens by plants.

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12-Formation of clouds in the sky.
Due to condensation of water vapor into water droplets that attach to particles of dust or smoke in the air.
13-The weather in the area near the equator is hot.
Because the sun rays fall perpendicular on Earth's surface, concentrated in very small area and giving high effect of heat.
14-The effect of heat is low in the area at the north and south of the equator.
Because the sun rays fall semi-inclined on Earth's surface of these areas, distributed in large area giving low heat effect, so the weather is warm.
15-Changing of some amount of water in water bodies into water vapor.
Due to evaporation process, as a result of gaining of thermal energy.
16-Desert farming faces many difficulties.
Because the desert's climate is hot and the amount of water is small.
17-Sometimes people prefer to live in desert land instead of cities.
Due to the fast population growth in cities.
18-At noon, we may not be able to stand barefoot on the sand of a beach in summer, but we can swim in the sea water.
Because sand is heated up faster than water.
19-When air is heated, it expands.
Because the molecules of air move away from each other.
20-Extreme weather became stronger in many places around the world.
Due to global climate change.
21-Floods have some benefits.
Because some ecosystems depend on floods such as ecosystems along the Nile.
22-Sandstorms have harmful effects on human health.
Because sandstorm harm the human eyes and respiratory system.

-What happens if:

1-Water in a lake is exposed to solar radiation for a long period of time.
The water in the lake will evaporate and this lake becomes dry.
2-Water vapor in the sky loses a big amount of thermal energy.
Water vapor condenses forming clouds.
3-The temperature of air increases in an area.
The density of air will decrease so the air will move upward.



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4-You cover some leaves in a plant with a plastic bag then leave the plant in the direct sunlight for a while.
Water droplets will be formed inside the bag.
5-There is no wind on Earth.
The regions around the equator become extremely hot and the poles will completely freeze.
6- Water of seas and oceans gains a big amount of thermal energy.
Water of seas and oceans changes into water vapor in air.
7-Moist air touches a cold bottle of water.
Water vapor which is found in air condenses on the surface of the bottle.
8-Water vapor in air condenses in the sky.
Clouds are formed in the sky.
9-The water droplets in the clouds become very heavy.
Precipitation is formed

What happens to:

1-The level of water in a lake when the rate of evaporation increases.
The level of water will decrease.
2-The snow when sunlight falls on it.
The snow will melt and change into liquid water.
3-The weather if the sun rays fall very inclined on an area.
The weather of this area becomes very cold.
4-The density of air if the cold air is warmed by the effect of solar energy.
The density of the air will decrease.
5-The movement of air when solar radiation heats up the air in an area.
The air will move upward in this area.
6-The atmospheric pressure, as we move up toward the top of a mountain.
The atmospheric pressure decreases.
7-Air density, as we move down toward the bottom of a mountain.
Air density will increase.
8-The temperature of water inside a beaker if we put it under a lighted lamp for few minutes.
The temperature of water will increase.
9-The temperature of desert sand at night.
The temperature of a desert sand will decrease.

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10-We boil water in a pot on the stove. (concerning the movement of hot water and cold water)

Hot water moves up and cold water falls down.

11-Buildings when they are subjected to strong floods.

They may be damaged by moving or breaking them.

12-Solar panels when dust accumulates on them.

Solar panels stop generating energy.

13-The temperature of desert sand at night.

The temperature of desert sand will decrease.

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حمل الآن

مجانا وحصريا

المراجعة رقم (6)

اختبار شهر فبراير





Give the reason.

1- **Drying up of the large lake in turkey in the summer season**
   Due to the increase of evaporation of the lake water
2- **Formation of fog in the early morning**
   Due to condensation of water vapor that is found in the air
3- **Changing of water from one state to another**
   Due to gaining or losing of thermal energy
4- **Moving down of glaciers from the top of a mountain to its foot**
   Due to the effect of gravity on glaciers
5- **Changing of some amount of water in water bodies into water vapor**
   Due to evaporation process as a result of gaining thermal energy
6- **About 10% of water vapor in air comes from plants**
   Due to transpiration process which happens by plants
7- **Formation of clouds in the sky**
   Due to condensation of water vapor into water droplets that attach to particles of dust or smoke in the air
8- **Hot air moves upward above cold air**
   Due to convention where hot water has less density and rises up while cold air has more density and falls down
9- **The weather in the are near the equator is hot**
   Because the sun rays fall perpendicular on Earth's surface giving high effect of heat

10- **The effect of heat is low in the area at the north and south of the equator**
Because sun rays fall semi inclined on Earth's surface of these areas, so the weather is warm

11- **On adding warm water to cold water without shaking, the warm water stays above the cold water without mixing**
Due to convection as warm water has less density than cold water so warm water stays above cold water

12- **The formation of wind is determined by the amount of solar radiation received by the Earth**
Because warm air rises up when it is heated by solar radiation, and it is replaced by cooler air from nearby areas

13- **Desert farming faces many difficulties**
Because the desert's climate is hot, and the amount of water is small

14- **Sometimes people prefer to live in desert land instead of cities**
Due to the fast population growth in cities

15- **Hot air moves up while cold air moves down**
Because hot air has low density while cold air has high density




What happens to/if?

1- **The level of water in a lake when the rate of evaporation increases**
   The level of water will decrease
2- **The snow when sunlight falls on it**
   The snow will melt and change into liquid water
3- **Water of seas and oceans gains big amount of thermal energy**
   Water will change into water vapor
4- **You cover some leaves in a plant with a plastic bag then put it in the direct sunlight**
   Water droplets will form inside the bag
5- **Moist air touches a cold bottle of water**
   Water vapor condenses on the surface of the bottle
6- **Water vapor in air condenses in the sky**
   Clouds are formed in the sky
7- **Water droplets in the clouds become very heavy**
   Water droplets fall in the form of rain
8- **Weather if the sun rays fall very inclined on an areas**
   The weather in this area becomes very cold
9- **The density of air if the cloud air is warmed by the effect of solar energy**
   The density of the air will decrease
10- **Air temperature if there is no wind on Earth**
   The regions around the equator become extremely hot and the poles will completely freeze

11- The movement of air when solar radiation heats up the air in an area

The air will move upward

12- The atmosphere pressure, as we move up toward the top of a mountain

The atmosphere pressure decreases

13- Air density as we move down toward the bottom of the mountain

Air density will increase




كيفية طباعة صفحات معينة من ملف معين

مثلا ازاى نطبع الصفحات من صفحة 4 الى صفحة 9

خطوة 1

خطوة 2 اختيار اسم الطابعة بتاعتك

خطوة 3 كتابة الصفحات المراد طباعتها نكتب رقم 4 ثم نكتب الشرطة دي – ثم نكتب 9

خطوة 4 اختيار نوع الورق

خطوة 5 اختيار A4

خطوة 6

ذاكرولى RaNia SaYed